Date issued: November 13, 1997

In the Matter of:

JUDY K. STEPHENSON

Complainant

Case No. 94-TSC-5

v.

NATIONAL AERONAUTICS
& SPACE ADMINISTRATION

Respondent

APPEARANCES:

EDWARD A. SLAVIN, JR., ESQ.
LORI A. TETREAULT, ESQ.

For The Complainant

DAVID A. SAMUELS, ESQ.
DANIEL R. REMINGTON, ESQ.

For The Respondent

Before: LEE J. ROMERO, JR.
Administrative Law Judge

RECOMMENDED DECISION AND ORDER

This case arises under the employee protection provision of the Clean Air Act, 42 U.S.C. § 7622 and the pertinent regulations at 29 C.F.R. Part 24. On February 11, 1994, Judy K. Stephenson (Complainant) filed an administrative complaint against the National Aeronautics & Space Administration (Respondent or NASA) with the Wage and Hour Division of the United States Department of Labor (DOL). The complaint was initially filed pursuant to the Toxic Substance Control Act (TSCA) against Martin Marietta Services Incorporated, Martin Marietta Corporation, the Johnson Space Center, National Aeronautics and Space Administration (NASA), and five individuals. Later, Complainant filed a consolidated complaint which alleged violations of the employee protection provisions of the Clean Air Act.

Procedural Background

On July 3, 1995, following the filing of a series of pre-hearing motions including a motion to dismiss, the Secretary of Labor (herein Secretary) adopted the following recommendations of the administrative law judge: (1) Complainant and Martin Marietta respondents had agreed to a settlement that was fair, adequate, and reasonable, (2) the individually named Respondents were employees not subject to suit under the TSCA or the Clean Air Act, and (3) Respondent was immune from suit under the TSCA. In addition, the Secretary determined that the Complainant filed a timely claim pursuant to the Clean Air Act, under which NASA did not have sovereign immunity, although Complainant did not specifically allege in her complaint a violation of the Clean Air Act. The case was remanded to the administrative law judge for a hearing on the Clean Air Act complaint of unlawful discrimination against NASA, the sole remaining respondent. (ALJX-4).

Respondent filed a motion to dismiss the case under Federal Rules of Civil Procedure 12(b)(1) for lack of subject matter jurisdiction which was granted by Administrative Law Judge Quentin McColgin. On August 21, 1995, the Secretary rejected the administrative law judges recommendation. On September 28, 1995, upon reconsideration, the Secretary issued a new order in which Respondent's 12(b)(1) motion to dismiss was treated as a Rule 12(b)(6) motion to dismiss for failure to state a claim upon which relief may be granted. (ALJX-6). Furthermore, the Rule 12(b)(6) motion to dismiss was treated as a motion for summary judgment. The Secretary rejected Respondent's motion because it submitted three cursory, conclusory affidavits which were insufficient to demonstrate that there was no genuine issue as to any material fact. The Secretary remanded the case to the administrative law judge for further development and an opportunity for each party to submit evidence in support of its position. (Id).

Thereafter, Respondent filed a motion for summary judgment arguing that it was not Complainant's direct employer or common law employer. Respondent's motion for summary judgment was granted by the administrative law judge but denied by the Administrative Review Board on February 13, 1997. [1] (ALJX-7).

This matter was remanded to the Office of Administrative Law Judges for a formal hearing. The Administrative Review Board remanded the matter for reasonable discovery and submission of evidence such that a more complete factual record could be developed to determine Complainant's employment relationship with Respondent. (ALJX-7, p. 4). Pursuant thereto, Notice of Hearing was issued scheduling a formal hearing in Houston, Texas, which

[1] Respondent filed a motion for reconsideration that was denied on April 7, 1997. (ALJX-8).

commenced on May 12, 1997 and closed on May 16, 1997. All parties were afforded a full opportunity to adduce testimony, offer documentary evidence and submit post-hearing briefs. The following exhibits were received into evidence: [2]

Complainant Exhibit numbers: 1-7, 9-25, 27-36, 39-44, 46-62, 64-66

Respondent Exhibit numbers: 1-37

Administrative Law Judge Exhibit numbers: 1-10

Proposed findings of facts and conclusions of law were received along with briefs from Complainant [3] on August 18, 1997 and Respondent on August 14, 1997. In addition, both parties filed reply briefs in this matter on September 2, 1997. Based upon the evidence introduced and having considered the arguments presented, I make the following Findings of Fact, Conclusions of Law and Recommended Order.

I. ISSUES

1. Applicability and Scope of the Clean Air Act.

2. Complainant's Employment Status.

3. Respondent's alleged discriminatory conduct.

II. SUMMARY OF THE EVIDENCE

Testimonial Evidence

Complainant

Complainant obtained a bachelor of science in medical technology. (Tr. 140). She has completed several courses in a master's of business administration program and the futures research program. She is a member of the American Society of

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[2] References to the record are as follows: Transcript: Tr.___; Complainant's Exhibits: CX-___; Respondent's Exhibits: RX-___; and Administrative Law Judge Exhibits: ALJX-__.

[3] In Complainant's post-hearing brief, she relied on an incorrect version of the Secretary's order, dated July 3, 1995, obtained from the Department of Labor, Office of Administrative Law Judges Law Library, Whistleblower Collection found on the Internet. Where a discrepancy exists between an Internet-reported decision and an original slip opinion, the slip opinion will be considered authoritative.

Clinical Pathologists and belongs to the World Futures Society. (Tr. 141).

Complainant's employment history includes working in hospitals as a medical technologist in immunology and microbiology, [4] teaching medical technology students at Cabell Huntington Hospital, hospital marketing representative, selling and servicing pharmaceuticals including specialty medical equipment, and realtor. In April 1990, Complainant began employment with Martin Marietta as a hardware development specialist. [5] (Tr. 141-148; RX-34).

Complainant testified that she has never received a letter of reprimand with the exception of the November 1993 letter of reprimand she received while working for Martin Marietta. Moreover, Complainant has never received a bad performance review. (Tr. 156). In the past, Complainant left her job positions voluntarily with good references. (Tr. 141-148).

While working in hospitals, Complainant became familiar with the ethylene oxide (ETO) sterilization process. Although ETO was not used in the microbiology departments where Complainant worked, she received the testing strips from central supply when an ETO test was performed. Complainant cultured the strips at the appropriate temperature and time to confirm whether a batch failed or passed the test. (Tr. 148-149).

Complainant testified that she has a basic understanding of the hospital method and equipment used for ETO sterilization. Based on her experience and research, she explained that an ETO sterilizer consists of a closed type chamber where items are placed to be sterilized. The items go through an overnight cycle. The chamber is saturated with ETO to kill the contaminants. Once the ETO gas has remained in the chamber for a pre-determined time period, the ETO is evacuated and room air is then blown over the hardware to remove the ETO from the items. (Tr. 149).

While working in hospitals, Complainant learned sterile technique for drawing or administering blood. She was instructed to dispose of any medical hardware that was not sterile to preclude a question of sterility. (Tr. 150). She explained that there are three levels of sterilization dependent upon which part of the body such medical hardware may contact. Medical hardware which comes into contact with sites like the meninges, the spinal fluid, or the blood must be guaranteed sterile by use of an autoclave process.

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[4] One of Complainant's prior job positions included laboratory manager. (Tr. 144).

[5] Originally, Complainant began employment with GE Government Services which later became Martin Marietta. (Tr. 148).

Other types of instruments which enter the mouth cannot be put in an autoclave so they are put through the ETO sterilization process or washed with a liquid sterilant to make them as sterile as possible. (Tr. 152-153).

The first project Complainant worked on at Martin Marietta was a biomedical lab for space station Freedom. Complainant's direct Martin Marietta supervisor was Barbara Parnell. (Tr. 153-154). Ms. Parnell gave Complainant her daily job tasks to complete. Jim Bielat, a Martin Marietta manager, issued Complainant's performance reviews. While working on this project, Complainant interacted with David Proctor, a job order manager for Respondent. (Tr. 155). Complainant received from Martin Marietta a salary along with health insurance, life insurance, disability insurance, medical insurance, accident insurance, tuition reimbursement, and a 401(K) plan. (Tr. 153-154; RX-34).

Later, Complainant worked on the "metabolics" project which involved making laboratory type items "space ready" to protect the integrity of the blood and urine samples. (Tr. 157). Dave Geaslin was Complainant's Martin Marietta supervisor. In Complainant's second year of employment, she took personal leave time approved by Martin Marietta to care for her mother. (Tr. 158).

Complainant was assigned to a variety of other projects such as the "cardiac experiments" and "principal investigator [PI] in a box." Complainant received a commendation while working on the "PI in a box" project. (Tr. 159-160; See CX-6, CX-12).

On November 1 or 2, 1993, Don Richardson, a Martin Marietta co-worker, instructed Complainant on "metabolics" assembling peripheral venous pressure devices (PVPD) for a shuttle mission scheduled in January 1994. (Tr. 165). The PVPD project was conducted under the Life Sciences Directorate in Building 36, Room 1014-C on the Johnson Space Center. [6] (Tr. 161, 167). Complainant testified that both Respondent's employees and Martin Marietta employees worked on this project. There was no particular Martin Marietta project leader, however, Mr. Richardson was the informal

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[6] Complainant explained that this room is commonly referred to as the "clean room," however, it is not an actual operational clean room with sterile technique, like an operating room and negative air flow, but a controlled work location. It is the size of two basketball courts and is four stories high. (Tr. 168-169). Complainant and other workers were assigned work areas with desks in the clean room. She explained that it was not common to have desks and work areas in a clean room. (Tr. 186). Complainant's desk was in close proximity to the table on which the exposed PVPDs were air drying. (Tr. 186-187).

project leader. (Tr. 166). Dave Geaslin was Complainant's Martin Marietta line supervisor. (Tr. 167).

Complainant testified that Jennifer Villarreal and Angie Lee, both NASA employees, sent her and other Martin Marietta employees e-mail messages containing daily "to do" lists. She explained that the e-mail messages contained items such as "Did you order this today?", "Did this get put together?", and reminders to attend meetings. Complainant further explained that Martin Marietta employee names were placed next to a particular task to be completed. (Tr. 167).

Complainant testified that a clean room must be operated with a negative air flow so that when the door opens, the air goes out and not into the room. The air is filtered with high-efficiency particular filters (HEPA) and charcoal filters. The room is constantly cleaned with antiseptic or Clorox. In addition, the room should contain laminar flow hoods and gloves to use for sterile technique. (Tr. 168-169). Complainant testified that Room 1014-C was not an operational clean room because there was no laminar flow hood and she believed that the negative air flow system did not operate properly. (Tr. 170).

Complainant testified that the clean room should have been an operational clean room because it is important to keep an item in the cleanest condition before re-sterilization to prevent over contamination with spores or bacteria. (Tr. 170-171). She explained that when she worked in hospitals, items would be assembled in an operational clean room with everything as sterile as possible. The personnel would be scrubbed, gowned, and wear gloves. (Tr. 171).

According to Complainant, no standard procedure existed for the assembly of the PVPDs except the instructions she received from Mr. Richardson. (Tr. 176). Complainant testified that three separate individually packaged parts were assembled to make the individual PVPDs. (See RX-37). The seals on the packages were broken and the three parts were assembled to make a PVPD. (Tr. 173). The separate parts were removed from the manufacturer's sterile package and placed on a work table in the clean room. The parts were assembled and placed into a bucket of water. The pail came from the janitorial area, and the water was drawn from the tap and was not sterile. (Tr. 174-175). The PVPDs were injected with water to determine if the joints leaked. (Tr. 164-166). The PVPDs were then left on the table to air dry and later were packaged in "tie-vac type material" and sent to St. John's Hospital for ETO sterilization. (Tr. 175-176). Complainant testified that she was appalled that the separate parts were removed from the sterile packaging not using sterile technique. (Tr. 176).

The PVPDs were used on the ground at Johnson Space Center and in the space shuttle to collect and compare data. (Tr. 172). They were used to detect blood pressure while on the vein. (Tr. 173).

Complainant testified that the PVPDs were sent to St. John Hospital, a small community hospital located near Johnson Space Center, for ETO sterilization. (Tr. 176). Complainant explained that she learned from her experience as a medical technologist that ETO leaves residues which render medical devices unusable in microbiology and virology lab because the residue actually kills the organisms that are to be detected. In addition, there is a high rate of failure for sterilization. (Tr. 177).

During the first week of November 1993, Complainant informed Angie Lee, Respondent's project leader, that she was concerned with the ETO sterilization process and that the current procedure for assembling the PVPDs was not normal medical practice. Complainant requested from Ms. Lee Respondent's documentation approving the current procedure used for assembling the PVPDs. (Tr. 177-178).

In addition to the Complainant's verbal concern mentioned to Ms. Lee, on November 12, 1993 she sent Mr. Geaslin and Ms. Lee an e-mail message detailing her concern of the PVPD assembling process. (Tr. 180; See RX-11, p. 5). Ms. Lee responded to Complainant's concern by e-mail stating that she would convey her concern to Jennifer Villarreal, who also worked on the PVPD project. [7] (Tr. 181; See RX-11, p. 4).

Complainant testified that within one week, Ms. Villarreal sent a memorandum to her stating that "safety" did not have to sign off on the procedure, this was no concern of the Internal Review Board, and that all the ETO was removed from the hardware. (Tr. 181; See RX-11, p. 4 [8]). Complainant did not receive further communications from Ms. Villarreal regarding the ETO sterilization process. (Tr. 255; RX-11). Immediately after Complainant received the November 12, 1993 e-mail message from Ms. Villarreal, she spoke with Bill Seitz, Respondent's manager supervising hardware development who reported to Cathy Kramer, division chief of Building 36 and his direct supervisor. (Tr. 80, 181, 184). She informed him of her concern regarding the "non-aseptic technique" of assembling the PVPDs, the reliability of the ETO sterilization process, the ETO residue left on the medical hardware, and the ETO offgassing which could occur in the space shuttle. Complainant suggested that Respondent culture the hardware to determine its

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[7] Based on Complainant's testimony, Ms. Lee referred the matter to Ms. Villerreal because Ms. Lee had not been with the project from the beginning as had Ms. Villarreal. (Tr. 181).

[8] The message was dated November 12, 1993. (Tr. 255; RX-11, p. 4).

sterility and the amount of off-gassing produced by the ETO. Mr. Seitz told Complainant that he would inform Ms. Kramer of her concern. (Tr. 182).

According to Complainant, Mr. Seitz asked her to help him investigate her concerns and she agreed. Complainant called the American Sterilization Company (AMSCO) [9] to obtain more information regarding ETO. She learned that Freon was the "carrier gas" and there was more danger than she originally perceived since Respondent had "grave concerns" about Freon in the refrigerator units. (Tr. 183).

During the second week of November 1993, Complainant removed seventy-five assembled exposed PVPDs from the work table, placed them in the original packing container, and placed them in the hallway. [10] She explained that she was in a "hospital safety mode" and that Mr. Seitz had impressed upon her that an alternative method would be used to re-sterilize the hardware. Complainant further explained that she removed the hardware so that it would not be accidently used since Mr. Seitz gave her the impression that an alternative method would be used. [11] (Tr. 189). She did not inform anyone of her action at the time she removed the PVPDs to the hallway. (Tr. 189).

The PVPDs remained in the hall for approximately one hour. (Tr. 190). Complainant testified that she did not destroy or damage any of the PVPDs. (Tr. 192). According to Complainant, she did not believe that the PVPDs were any less sterile by being placed in the hall than they were drying out on the table in the clean room. (Tr. 193).

Approximately one hour after Complainant removed the PVPDs to the hallway, Hugh Fitzgerald, a Martin Marietta employee, asked Complainant if she removed the hardware to the hallway. He explained to her that the hardware was Respondent's property and Respondent should dictate the disposal of their property. Complainant agreed, explained to Mr. Fitzgerald the reason for her

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[9] The AMSCO Company is a commercial manufacturer of ETO sterilizers used in hospitals. (Tr. 183).

[10] Complainant later testified that she moved the PVPDs on the following Tuesday or Wednesday, November 16 or 17, 1993, two working days after she first expressed her complaint to Ms. Lee and after she spoke with Mr. Seitz. (Tr. 256).

[11] The PVPDs had been on the work table for approximately 8-9 days before Complainant placed them in the hall. Complainant surmised that the PVPDs had remained on the table for such a time period to dry. The next step would have been to put the PVPDs in packages and send them for ETO sterilization. (Tr. 190).

actions, and stated she would retrieve the PVPDs. Mr. Fitzgerald and Complainant returned the property to the work table. (Tr. 189).

As a result of Complainant's actions with the PVPDs, on November 19, 1994, she received a written reprimand from Patrick Hite, Complainant's second line Martin Marietta supervisor. (Tr. 193; CX-14 [12]). Upon receiving the written reprimand letter from Mr. Hite, Complainant explained her actions. (Tr. 194). She explained that the hardware could not regain sterility and that she did not trust the ETO sterilization process. She felt that Martin Marietta would be at risk using the current procedure for assembling the PVPDs. (Tr. 195). Mr. Hite explained that Respondent viewed her actions as destroying the property. (Tr. 194). According to Complainant, Mr. Hite stated that he felt forced to give her the written reprimand and he was not "real angry" about her actions. (Tr. 195, ln. 8). At this time, Complainant spoke with Mr. Seitz and the "Quality" personnel concerning documenting her movement of the PVPDs. (Tr. 194). In addition, Complainant asked to be reassigned because morally and ethically she disagreed with the project. (Tr. 196).

A discrepancy report was completed by Ms. Villarreal regarding Complainant's actions with the PVPDs. [13] (Tr. 191). The report showed a loss of traceability with the PVPDs. Complainant explained that a loss of traceability indicated there was no documentation of the PVPDs movement from the clean room to the hallway and then back to the clean room. (Tr. 192).

At an undetermined time after Complainant received the written reprimand, she was reassigned to the PVPD project for MIR at the Agena building off-site. [14] Her responsibilities included assembling PVPDs using the same procedure and re-sterilization process used for PVPDs in Building 36. (Tr. 196-197). She testified that her duties included determining the proper number of

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[12] Complainant testified that she signed the reprimand acknowledging receipt of it, however, she did not agree with the facts as they were explained to her. (Tr. 199).

[13] A discrepancy report is an "anomaly report" in Respondent's reporting system which describes out-of-the-ordinary occurrences. Personnel and quality personnel from Raytheon, another NASA contractor, are responsible for completing discrepancy reports. (Tr. 191).

[14] Although it is unclear from Complainant's testimony, it appears that Complainant was transferred before she first spoke with Lance Carrington at the Inspector General's office on December 7, 1993. (Tr. 197-198).

tubes required for the collection of blood while in space. (Tr. 197-198).

On December 7, 1993, Complainant went to Respondent's Inspector General because Mr. Hite nor anyone else contacted her regarding her concerns about the ETO sterilization process. [15] She

[15] Complainant informed Mr. Carrington of the following allegations: (1) Complainant believed the sterilization process of the PVPDs did not properly offgas the ETO and the PVPDs used on a previous flight were not sterile; (2) the PVPD dome assembly consists of a pressure dome and two extension sets which are attached to the PVPD pressure transducer; the extension set is attached to the three-way stopcock on the saline vial and injector assembly; at the end of the dome assembly's second extension set is a Blunt Cannula that is inserted into the injection port at the end of the extension tubing in the crew members' arm, thus creating a continuous fluid column between the crew members' vein and the PVPD dome; (3) the pressure dome is a pre-packaged sterile device not intended to be repackaged or re-sterilized by the end user; (4) before the SLS-2 mission, the PVPD dome assemblies were used by Respondent as recommended by the manufacturers and not re-packaged or re-sterilized; the crew members assembled the PVPDs in space from the original sterile packaging; upon being assembled in space, a safety device was also removed from one extension tube that prevented blood from back flowing into the PVPD; (5) on the SLS-2 mission, a new procedure was used where the separate component parts of the PVPD were removed from sterile packaging, assembled and placed in non-sterile water to perform leakage testing; although no water should enter the device, the outside of the device was being contaminated; if water did get inside the PVPD, there was no guarantee that a proper amount of ETO could get inside the tubing to effectively sterilize the interior of the device; (6) the assembled PVPDs were dried for six hours once removed from the water; they were packaged and sealed, and sent to St. John's Community Hospital for ETO sterilization for 1 hour and 45 minutes at 130 degrees and aerated for 12 hours; Respondent was supplied with a certificate of compliance in conjunction with the sterilization performed; (7) St. John's Hospital's ETO sterilization process did not effectively sterilize the interior tubing and the pressure dome of the PVPDs; the tubing should be sterilized using pressure steam (autoclave); (8) the PVPDs may have residual ETO as a result of the ETO sterilization process conducted at St. John's Hospital such that it could affect the integrity of the hardware and the space shuttle environment; (9) the ETO exposure time is dependent on the type of hardware material, the cleanliness of the hardware, and the temperature used in the ETO sterilizer; the exposure periods have to be determined experimentally utilizing acceptable microbiological sterility controls as a basis; (10) although St. John's Hospital

spoke with Lance Carrington at the Inspector General's office. (Tr. 198). Complainant testified that she requested confidentiality because of her fear of retaliation. (Tr. 198). However, the Inspector General did not keep Complainant's name confidential but allowed her name to remain in information given to Respondent concerning the investigation of the PVPDs. (Tr. 248; CX-21).

After Complainant was reassigned off-site, she returned to the Johnson Space Center and Building 36 on January 13, 1994, for approximately thirty minutes. She went to borrow a book for research purposes from David Proctor. (Tr. 214). After she obtained the book from Mr. Proctor, Complainant went to Room 1014-C to visit her co-workers. (Tr. 215). Complainant remained in the clean room for "not even five minutes." She explained that upon walking in the room, the faces of her co-workers went "ghost white." She left the room because everyone looked apprehensive and surprised to see her. (Tr. 216). Everyone "just kind of went quiet and stopped" and said "hi." Complainant got the impression from their body language that she was not welcomed in the room. (Tr. 217, 219).

Complainant stated that she stayed within the reception area of the green room which is less than twenty feet into the clean room. She did not touch anything, nor did she view any PVPDs. (Tr. 219). Complainant did not intend to destroy or damage any property. (Tr. 220). Once Complainant noticed the reactions of her co-workers, she immediately left the clean room and Building 36, going straight to her car. (Tr. 220.).

Complainant testified that she was never instructed not to be in the clean room, Building 36, or on Johnson Space Center. Moreover, she maintained her parking sticker and badge until January 14, 1994. (Tr. 195, 217).

On January 14, 1994, Joe Mims, Martin Marietta supervisor, brought her a memorandum which indicated she was prohibited from the Johnson Space Center. (Tr. 221; CX-2 [16]). Complainant

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issued a certificate of compliance, the PVPDs may not be effectively sterilized because the same parameters were used each time; (11) Respondent and Martin Marietta were informed of the above mentioned concerns, however, no one appeared to address the concerns; and (12) if the PVPDs were not properly sterilized, the crew could face possible blood infection which could be fatal; if the ETO was not completely removed from the hardware, a possible chemical reaction could occur which would incapacitate the crew. (RX-7; CX-50; Tr. 201-209).

[16] The memorandum ordered Complainant not to travel onto Johnson Space Center for any business purposes related to her

explained that she was surprised to receive the order and that Martin Marietta would agree to such a directive from Ms. Kramer. Complainant believed Ms. Kramer ordered the directive because the memorandum indicated she had done so and she was the "top manager" in Building 36. (Tr. 222). After receiving the memorandum, Complainant immediately turned in her parking sticker and badge to Linda Look, a Martin Marietta manager. (Tr. 224). Complainant testified that she was not provided with the reason her badge and parking sticker were revoked. (Tr. 224).

According to Complainant, the January 14, 1994 memorandum was distributed all over Building 36 the following Monday. (Tr. 231). Complainant contacted Mr. Mims concerning the distribution of the memorandum. Mr. Mims informed Complainant that Mr. Fitzgerald distributed the memorandum on everyone's desk. (Tr. 232).

Complainant's badge and parking sticker were never returned to her. (Tr. 226). Complainant testified that she did not understand how Martin Marietta could allow such a directive to be given by Ms. Kramer and expect her to perform her job without interfacing with other employees working on the same project despite a disclaimer that such directives were not expected to "hinder your ability to perform effectively in your current position." (Tr. 227; CX-2).

Complainant testified that she could not effectively perform her job. (Tr. 227). The meetings for the experiment engineering team, of which Complainant was a member, were always held in Building 36. Thus, Complainant could not attend the regular team meetings or any other Martin Marietta meeting held in Building 36. She explained that she became isolated due to her ban from the Johnson Space Center. (Tr. 228). In addition, Complainant had to speak with Respondent's Life Sciences civil servants to clarify some task managements for her work, however, she was instructed not to speak with Respondent's personnel concerning her work with the Life Sciences Division. (Tr. 229, 230). Complainant explained that she needed to speak with Respondent's personnel on a weekly basis. (Tr. 230-231). In addition, the ban prevented her from

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work for Respondent's Life Sciences Division and Martin Marietta Services. Complainant was prohibited from contacting any of Respondent's Life Sciences civil servants for any purpose related to her duties as a Life Sciences Division contractor working for Martin Marietta. Furthermore, Complainant was prohibited from entering the Webster facility or any other facility producing flight hardware. Complainant was required to adhere to the directives as a condition of her continued employment. The memorandum informed Complainant that Martin Marietta did not expect the directives to hinder her ability to perform effectively her current position. The directives were not to be considered as a factor in future performance evaluations, salary increases, or promotional status. (CX-2).

using the technical library located in Building 36, which she has used in the past. [17] (Tr. 231). Complainant explained that she would use the library when asked by a manager to perform research, however, it was common to perform independent research. Complainant testified that she did not have a daily need to be in Building 36. (Tr. 266).

Complainant complained to Martin Marietta management that the ban would hinder her ability to attend the on-site meetings. On one occasion, Complainant was escorted on-site with a "top-level" Martin Marietta manager to attend a company-wide Martin Marietta meeting being held on the Johnson Space Center in an auditorium not located in Building 36. She was not allowed to sit with her husband, a Martin Marietta employee, during the meeting. (Tr. 229). Complainant testified that she had "never been so embarrassed in my life." (Tr. 229, ln. 24).

After receiving the January 14, 1994 memorandum, Complainant contacted Mr. Carrington to discuss her ban from Johnson Space Center and the investigation of the ETO sterilization process. He informed Complainant that the investigation was closed because the office determined that there was no problem with the ETO sterilization process based on the memorandum from Dr. Sam Pool, medical division chief at the Johnson Space Center. At the end of the conversation, Mr. Carrington informed Complainant that she had "whistleblower rights." Complainant could not recall if Mr. Carrington mentioned a specific act under which she had rights. (Tr. 233-234). Complainant contacted a lawyer after she spoke with Mr. Carrington. (Tr. 233-234).

Complainant testified that she settled her claim with Martin Marietta. As a term of the settlement, Martin Marietta demanded that she quit her job position. Complainant resigned from Martin Marietta on June 1, 1994. (Tr. 235).

Complainant attempted to obtain work at hospitals and diagnostic companies. She has worked part-time as a realtor. (Tr. 235). In addition, she has worked two temporary telemarketing job positions and one temporary lab position. (Tr. 236). She has not been able to obtain a full-time job position performing her usual employment. (Tr. 236).

Complainant filed her complaint with the Department of Labor on February 11, 1994 and worked for Martin Marietta until June 1, 1994. (Tr. 234-235). She testified that the working environment was miserable from February until June 1994 because other employees did not want to associate with her since she filed a complaint with

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[17] The library is located on the second floor of Building 36. The library contains all the drawings and procedures for experiments. (Tr. 266).

the Department of Labor. In addition, Complainant's home life was miserable because her husband was a Martin Marietta employee and he did not want her to file the complaint. (Tr. 244).

Complainant continued to perform her job satisfactorily although she did not feel like she was producing much work because Martin Marietta did not assign her much work. (Tr. 244). Eventually, Complainant was transferred to a new division under the supervision of Dr. Vaughan Clift. (Tr. 245). The atmosphere was more friendly in the new department. (Tr. 246). At the time Complainant resigned from Martin Marietta, her annual salary was $34,500.00. (Tr. 246).

Complainant testified that she raised concerns about the ETO sterilization process because it could endanger the astronauts and the public. Complainant explained that Respondent employed non-astronauts to test the experiments. In addition, Complainant raised concerns because the ETO offgassing levels could harm the astronauts while in the space capsule and the employees working in the lab. (Tr. 249-250; See CX-21, p. 3).

Richard Kitterman

Richard Kitterman testified that he currently works for Futron Corporation as a technical consultant. Mr. Kitterman worked for Martin Marietta from January 1985 until October 1995. (Tr. 96). In 1993 and 1994, Mr. Kitterman was the manager of projects supporting the Life Sciences Projects Division [18] at Respondent's Johnson Space Center. It was his responsibility to manage the contractor staff supporting Respondent's Life Science Projects Division. Mr. Kitterman was not Complainant's direct manager but received reports from Mr. Mims, a section manager, who received reports from Mr. Hite, Complainant's direct supervisor. (Tr. 71-73). Mr. Kitterman had daily contact with managers of Respondent. (Tr. 73).

Mr. Kitterman testified that he and his supervisor, Clay Shadeck, met with Ms. Kramer and Bill Seitz, a NASA branch manager, in November 1993 after Complainant moved the PVPDs from the clean room to the hallway. (Tr. 77, 80). He was informed that Complainant had placed the PVPDs "in the trash." (Tr. 85). According to Mr. Kitterman, Ms. Kramer informed him that she did not want Complainant to handle flight hardware in the future. (Tr. 81). He could not recall whether Ms. Kramer or Mr. Seitz said anything about Complainant and Building 36. (Tr. 81).

Mr. Kitterman testified that Ms. Kramer expressed a strong emotional reaction to Complainant's actions with the PVPDs. He

[18] This division develops and supports the use of life sciences hardware for shuttle and space lab missions. (Tr. 73).

explained that Ms. Kramer raised her voice and her words were very strong, direct, and forceful. (Tr. 85-86).

As a result of Complainant's actions, Mr. Kitterman and others prepared a warning letter to be issued to Complainant. (Tr. 82; CX-14). Because of the seriousness of Complainant's actions with the PVPDs, Mr. Kitterman, Mr. Hite, Mr. Mims, and Ms. Look determined that disciplinary action in the form of a written reprimand was necessary. According to Mr. Kitterman, Respondent's personnel were not involved in writing the reprimand, but it was his response to Complainant's actions as reported by Ms. Kramer and Mr. Seitz. [19] (Tr. 83). Mr. Kitterman did not receive any further reports that Complainant mishandled the PVPDs. (Tr. 84).

Mr. Kitterman testified that Complainant was transferred, after receiving the written reprimand, to work on "some Russian project" located at the Martin Marietta Bay Area Boulevard facility which would not require her to be in Building 36 or at the Johnson Space Center on a regular basis. (Tr. 84-85). He explained that Complainant was transferred because of the written reprimand and her expressed desire not to work with the PVPDs anymore. (Tr. 85).

On January 14, 1994, Ms. Kramer, along with Jim Barnett, deputy division chief, requested Mr. Shadeck and Mr. Kitterman meet with her in her office. (Tr. 74-75). Ms. Kramer informed Mr. Kitterman that Glenda Allmond, Martin Marietta employee, reported that Complainant had been in Building 36 and in the clean room on the previous day. [20] (Tr. 108). Mr. Kitterman testified that Ms. Kramer "was quite upset" and informed him that she did not want Complainant in the clean room since her job responsibilities did not require her to be there. In addition, Ms. Kramer informed him that she did not want Complainant in the facility or talking to any of Respondent's personnel in the Life Sciences Division. He explained that Ms. Kramer's voice was raised, and her attitude was "very emotional, very strong." (Tr. 87).

Mr. Kitterman and Mr. Shadeck agreed to address the situation. (Tr. 76-77). As a result of Mr. Kitterman's meeting with Ms. Kramer, he, Mr. Mims, Mr. Hite, and Ms. Look prepared a memorandum to Complainant. (Tr. 74-77; CX-2). Once they were satisfied with the wording of the memo, Mr. Kitterman called Ms. Kramer to inform

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[19] Mr. Kitterman explained that Complainant received a written warning instead of a verbal warning because she handled government property inconsistent with established procedure and did not notify her management. (Tr. 107).

[20] According to Mr. Kitterman, Complainant returned to Building 36 on only one occasion. (Tr. 110-111). Furthermore, Mr. Kitterman believed that Complainant was at Building 36 for work-related purposes. (Tr. 112).

her the memorandum had been prepared and to obtain her approval. (Tr. 78).

Because Ms. Kramer was in a meeting, Mr. Kitterman called Mr. Barnett for his opinion about whether Mr. Kitterman should interrupt Ms. Kramer's meeting to review the memorandum. Mr. Barnett suggested Mr. Kitterman read the memorandum to him. After the entire memorandum was read to him, Mr. Barnett informed Mr. Kitterman [21] that Ms. Kramer would approve of the memorandum. (Tr. 78-79). The memorandum was thereafter presented to Complainant, however, Mr. Kitterman was not present. (Tr. 80).

Mr. Kitterman testified that Ms. Kramer had a very "heavy-handed" style of management. He explained that during meetings Ms. Kramer would "lash out" at any person who questioned her methods. Ms. Kramer would hold the award fee [22] as a threat over the Martin Marietta employees to insure they "do things her way." (Tr. 89). On more than one occasion, Mr. Kitterman heard Ms. Kramer comment to Martin Marietta employees during meetings that "your award fee is going to be piddle if you do that." (Tr. 90, line 7). In addition, Ms. Kramer, Walt Hanby, and Hank Huber [23] suggested to Mr. Kitterman that Martin Marietta should "do things about the salaries of specific individuals." (Tr. 90, ln. 15). Mr. Kitterman recalled comments such as "so and so was a really valuable person doing a great job [and] we sure hope that you [Martin Marietta] were doing right by them" and "it had come to their attention that maybe their salary wasn't on a par with that of other people or they weren't necessarily getting the increases that they should get." Mr. Kitterman informed Respondent's supervisors that these problems were not reported to him or other managers. (Tr. 91). Mr. Kitterman did not provide salary increases as suggested by Respondent. (Tr. 100).

Ms. Kramer and other managers regularly requested specific Martin Marietta employees be assigned to particular projects. According to Mr. Kitterman, Martin Marietta would not make an

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[21] Mr. Kitterman testified that he was on speaker phone with Mr. Barnett. Mr. Hite and Mr. Mims were in the room with Mr. Kitterman and could hear the phone conversation. (Tr. 78-79).

[22] Performance was the basis for the amount of profit Martin Marietta would earn on the contract with Respondent. Performance was assessed by Ms. Kramer and the managers reporting to her. According to Mr. Kitterman, the assessment had a number of subjective elements such that Ms. Kramer had some freedom to determine the "score" given to Martin Marietta which determined the profit received by Martin Marietta. (Tr. 89-90).

[23] Mr. Hanby and Mr. Huber were employees of Respondent under Ms. Kramer's supervision. (Tr. 90).

assignment without the approval of Respondent's personnel, as Martin Marietta's customer. (Tr. 92). Mr. Kitterman testified that Respondent did not often suggest a person be removed from a particular project. Respondent's personnel would inform him that a person was not performing well, and he would investigate the matter and make an adjustment in response to Respondent's concern if in "our judgment" it "made sense to respond to the customer's desire or not." (Tr. 94). Mr. Kitterman "did not necessarily make all re-assignments" suggested by Respondent. (Tr. 100).

During Mr. Kitterman's tenure at Respondent's Johnson Space Center, Complainant was the only person prohibited from entering the property of Johnson Space Center or speaking to Respondent's civil servant employees. (Tr. 95).

Catherine Kramer

Catherine Kramer was the division chief of Building 36 at the Johnson Space Center in 1993. (Tr. 278). She was responsible for all United States flight equipment being processed in Building 36. (Tr. 305).

In November 1993, Ms. Kramer was informed by Mr. Seitz that Complainant raised concerns regarding the ETO sterilization process for the PVPDs on the same day Complainant disposed of the PVPDs. (Tr. 294, 574). Ms. Kramer testified that she instructed Mr. Seitz to investigate the matter as soon as possible. (Tr. 294). Ms. Kramer did not participate in the investigation of Complainant's concerns, but Mr. Seitz supervised the investigation and worked with Ms. Villarreal to determine if the sterilization process was unsafe. (Tr. 575-576). According to Ms. Kramer, Ms. Villarreal and Mr. Seitz contacted the various vendors of the separate component parts to determine if ETO would properly sterilize the final product. (Tr. 576). Mr. Seitz and Ms. Villarreal were investigating other sterilization processes and the details of the ETO sterilization process performed at St. John's Hospital. (Tr. 576).

Ms. Kramer testified that a few days later, Mr. Kitterman and Ms. Kramer's deputy informed her that someone improperly disposed of flight hardware in Building 36. According to Ms. Kramer, she instructed Mr. Kitterman and her deputy that she wanted a discrepancy report written for the incident and the person removed from access to the flight hardware. [24] Ms. Kramer explained that she gave this instruction to Mr. Kitterman because he was the manager of the projects office for Martin Marietta and he was her point of contact for the contractor and the contracted work. (Tr.

[24] A discrepancy report (DR) may be written by a quality engineer, quality assurance personnel, or a safety person. Any person can request a discrepancy report be written. (Tr. 500).

571-572). Ms. Kramer testified that she did not request Mr. Kitterman to discipline Complainant nor was she aware that Complainant received a letter of reprimand. (Tr. 502, 509, 573). However, Ms. Kramer's statement to Sam Perez of the Wage and Hour Division of the Department of Labor indicates that she met with Mr. Kitterman to discuss the PVPDs, and he informed her that he was going to discipline Complainant. According to Ms. Kramer's statement, she instructed Mr. Kitterman to "get back with me" concerning the disciplinary action. Later, Mr. Mims and Mr. Hite informed Ms. Kramer that a letter of reprimand was issued to Complainant. Ms. Kramer was aware Complainant was going to be issued a letter of reprimand. On redirect examination, Ms. Kramer testified that she forgot she had knowledge of Complainant's letter of reprimand. (Tr. 1229; See CX-68, p. 2).

Ms. Kramer's statement to the Wage and Hour Division indicates that Mr. Kitterman informed her that he was going to discipline Complainant and "get back with" her. Mr. Kitterman thereafter informed her that he was going to issue a letter of reprimand to Complainant. Ms. Kramer instructed Mr. Mims to "get Clay Shadeck or Bob Frost because I couldn't have someone that I couldn't trust around the hardware . . . " Mr. Shadeck and Mr. Frost informed Ms. Kramer that they would move Complainant to a job position off the Johnson Space Center. (CX-68).

Ms. Kramer testified that Complainant should have used the proper procedures to move the PVPDs to prevent accidental use, i.e., a discrepancy report. (Tr. 507). She explained that if Respondent's personnel or quality control personnel [25] refused to write up a request, there were other ways of raising safety concerns other than removing the hardware from the work area. (Tr. 508).

Ms. Kramer testified that although Complainant did not actually destroy the PVPDs, they were destroyed as flight hardware. (Tr. 499) because there was a loss of traceability when the PVPDs were placed in the hallway and no one knew exactly what occurred to the PVPDs, if anything, while they sat in the hallway. (Tr. 499, 501). Thus, the PVPDs could not be brought back into compliance as flight hardware. (Tr. 501).

In December 1993, Ms. Kramer learned that an Inspector General's investigation was requested. (Tr. 577). Ms. Kramer was assigned to perform particular tasks to obtain information for the investigation. She delegated these duties to Mr. Seitz and Fred Spross, the branch chief responsible for experiments, who also delegated the duties further down the chain of command. (Tr. 578).

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[25] Quality assurance personnel were generally not Respondent's personnel. (Tr. 501).

Ms. Kramer coordinated and collected the research and reported it to Dr. Pool. (Tr. 577-579).

Ms. Kramer testified that she learned, at an undetermined time, that Complainant called Mr. Fitzgerald in December 1993 and alluded that she wanted to stop the mission. (Tr. 579).

In January 1994, Ms. Kramer learned from Mr. Fitzgerald and Ms. Allmond that Complainant had been in the clean room. [26] Ms. Kramer contacted Mr. Shadeck and Mr. Kitterman to inform them that Complainant was back in Room 1014-C and around the flight hardware. She explained to them that Complainant was not permitted around the flight hardware. Ms. Kramer testified that she believed Complainant would contaminate or dispose of flight hardware. [27] (Tr. 581).

On January 14, 1994, Ms. Kramer received a copy of the memorandum from Mr. Shadeck and Mr. Kitterman to Complainant. Ms. Kramer testified that she was very upset about the memorandum because it was incorrect. She did not tell Mr. Shadeck and Mr. Kitterman to revoke Complainant's badge and parking sticker and prevent her from entering the Johnson Space Center. (Tr. 583). Ms. Kramer testified that she was unsure whether she informed Mr. Shadeck and Mr. Kitterman that Complainant was not permitted in Building 36, but she was positive that she did not instruct Mr. Shadeck and Mr. Kitterman to prevent Complainant from entering the Johnson Space Center. (Tr. 584). Ms. Kramer testified that she was unaware whether Mr. Seitz or Mr. Barnett approved the January 14, 1994 memorandum. (Tr. 286-287).

Ms. Kramer's first reaction to the January 14, 1994 memorandum was to call Mel Buderer, the branch chief of science in her division, for advice. He suggested she contact Mr. Shadeck who was Mr. Kitterman's superior. (Tr. 553). Ms. Kramer testified that she contacted Mr. Shadeck as a friend for advice and because she wanted to inform Mr. Kitterman's supervisor of the mistake. (Tr. 282, 288, 553). She wanted to inform him that the memorandum contained incorrect information, however, she did not want Mr. Shadeck to take any personnel action against Mr. Kitterman. [28] (Tr.

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[26] Ms. Kramer explained that she did not “know everything, every day that goes on in my building” nor did she request to be kept informed of Complainant's activities. (Tr. 497, ln 19; 498). However, she was informed of Complainant's five minute visit in the clean room. (Tr. 497).

[27] Ms. Kramer testified that new PVPDs were then being assembled. (Tr. 582).

[28] Ms. Kramer denied having the authority to have Mr. Kitterman transferred. (Tr. 282).

553). Ms. Kramer did not take any further action to correct the mistake in the January 14, 1994 memorandum to Complainant. (Tr. 284).

At an undetermined time, Ms. Kramer called Dr. Carolyn Huntoon, Center Director, to inform her that someone voiced concerns about the ETO sterilization process. (Tr. 298). Later, Ms. Kramer testified that she wanted to keep Dr. Huntoon informed regarding Complainant's requests for the return of her badge and parking decal although she did not inform Dr. Huntoon of Complainant's concerns with ETO. (Tr. 563). Ms. Kramer could not provide any reason for keeping Dr. Huntoon informed of the parking sticker issue but not the ETO concerns. (Tr. 563).

On February 9, 1994, Ms. Kramer wrote a memorandum to Dr. Huntoon to provide her with information regarding Complainant and her badge and parking sticker. (Tr. 279; See CX-4). Ms. Kramer testified that her February 9, 1994 memorandum to Dr. Huntoon did not infer that she wanted Complainant to be prohibited from entering the Johnson Space Center but that she wanted to provide Dr. Huntoon with the name of the person who discarded the PVPDs. (Tr. 525; See CX-4). She also wanted to inform Dr. Huntoon that she could contact Mr. Wade from security for any clarifications "on anything." (Tr. 525, ln. 23).

On February 11, 1994, Mr. Seitz and Mr. Barnett wrote a memorandum indicating that Mr. Kitterman's January 14, 1994 memorandum was incorrect. (Tr. 282, 284; See CX-2; CX-30). According to Ms. Kramer, Mr. Seitz and Mr. Barnett wrote the memorandum because they were present when she informed Mr. Kitterman that she did not want Complainant around the flight hardware. Ms. Kramer did not co-author the February 11, 1994 memorandum or author her own corrective memorandum because she believed it would not be helpful since it was her word against Mr. Kitterman's word. (Tr. 284). She did not sign the Seitz/Barnett memorandum to otherwise express agreement with its contents. Ms. Kramer did not know the reason Mr. Seitz and Mr. Barnett decided to write the February 11, 1994 memorandum. (Tr. 531). In addition, Ms. Kramer was unaware of the reason Mr. Seitz and Mr. Barnett's waited twenty-eight days to correct the mistake in the January 14, 1994 memorandum. (Tr. 289).

Ms. Kramer testified that she had weekly meetings with the contract managers in accordance with the contract between Respondent and Martin Marietta. (Tr. 572). She denied requesting the contractor to raise their employee salaries. In addition, she denied giving broad hints to the contractors to raise employee salaries. (Tr. 515).

Ms. Kramer first testified that she did not want Complainant prohibited from entering Building 36, but only prohibited from access to flight hardware. (Tr. 502, 520). She later testified

that she wanted Complainant away from flight hardware and Building 36 if that insured Complainant was prohibited from access to flight hardware. (Tr. 537). Finally, Ms. Kramer testified after reviewing her statement to the Wage and Hour Division, that she wanted Complainant away from Building 36 because Complainant was asking questions of a civil servant engineer. [29] Ms. Kramer explained that the questions asked by Complainant concerned an astronaut's health and they were "ethically wrong to ask." (Tr. 1231). According to Ms. Kramer, she had completely forgotten that Complainant had made such inquiries. (Tr. 1231).

David R. Proctor

David R. Proctor testified that he worked for Respondent as a job order manager from September 1986 until January 1995. [30] (Tr. 116). A job order manager was assigned contractual requirements called job orders which were "essentially agreed upon between NASA and the contractor." (Tr. 116). He worked on the Space Payloads Development Engineering and Operations (SPDEO) contract which was part of the "GE Government Services Martin Marietta." (Tr. 117).

Mr. Proctor testified that Respondent would "dictate, very specifically" roles and responsibilities to the contractors, however, Respondent would go beyond its contractual agreement and try to influence the contractor concerning the placement of certain people on jobs. Without any specificity, Mr. Proctor testified that contractor employees could be reassigned at the request of Respondent's managers or performance evaluations could be used to persuade the contractors to assign particular people to specific projects. [31] (Tr. 118-119; See CX-1). Without explication, Mr. Proctor further testified that Respondent's managers provided "to do" lists for individual Martin Marietta employees in terms of expectations to be met on a daily or weekly basis and determined where projects were to be performed if the work was to be performed on-site. (Tr. 121-122, 133).

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[29] Complainant testified that she requested, from the civil servant engineer, non-confidential video tapes of training exercises using the PVPDs. (Tr. 1262).

[30] Mr. Proctor voluntarily left the employ of Respondent in accordance with a plea agreement with the Department of Justice. (Tr. 137; RX-35).

[31] Mr. Proctor testified that he believed the SPDEO contract did not permit Respondent to "hand pick" contractor employees for specific projects. Respondent was permitted to declare the educational level and skill level required to work on the project. It was the contractor manager's decision to supply employees to meet those needs. (Tr. 120).

Mr. Proctor testified that while working for Respondent, he had a contractor employee reassigned from his project to another project because of personality conflict or other issues. (Tr. 130). He was unaware of any contractor employees being fired at the request of Respondent. (Tr. 130, 132).

Mr. Proctor testified that Ms. Kramer tended to micromanage her division. She "tried to have her hand into a lot of different activities." (Tr. 121). She also "had direct or indirect influence contractually, even though she was not the contractor's officer's technical representative at the time. But she was basically responsible for the assignments given to that division by the directorate, in terms of making flights." (Tr. 127, ln. 13).

Around January 15, 1994, Mr. Proctor attended a budget meeting where Ms. Kramer bragged about having the ability to prohibit Complainant from the Johnson Space Center and that she was going to have her fired "over this incident." (Tr. 122). Ms. Kramer did not relate Complainant's ETO concerns to the January 14, 1994 memorandum. (Tr. 125). Mr. Proctor testified that Ms. Kramer commonly referred to Building 36 as "her building." (Tr. 123). He described Ms. Kramer as being controlling and domineering and who was not tolerant when people questioned or criticized her decisions. Mr. Proctor testified that Ms. Kramer ignored statements of fact and made decisions "on instances" that did not make sense. (Tr. 126-127).

In late 1993 or early 1994, Complainant reported her concerns about ethylene oxide (ETO) to Mr. Proctor although he was not her supervisor. (Tr. 124, 135). According to Mr. Proctor, Complainant's concerns were valid because the safety of the equipment used was questioned. (Tr. 135).

Mr. Proctor characterized Complainant as a good employee based on the time he worked with her as a job order manager. (Tr. 135).

Lance G. Carrington

Lance Carrington testified that he worked for Respondent at Johnson Space Center from 1988 through August 1996. Mr. Carrington's title while working at the Johnson Space Center was Special Agent. (Tr. 592). In 1991, Complainant provided Mr. Carrington with credible information that led to a larger investigation. (Tr. 594).

In December 1993, Complainant contacted Mr. Carrington and reported her concerns about using the current ETO sterilization process for medical hardware. (Tr. 594). Mr. Carrington testified that he informed Complainant that the foremost concern was the safety of the astronauts. In addition, he informed her that a past shuttle launch was delayed when it was determined that there were defective materials on the shuttle. (Tr. 595).

Mr. Carrington testified that Complainant appeared to raise her concerns in good faith. (Tr. 601). He conducted the interview with Complainant to learn of her concerns. As a result of Complainant's information provided to Mr. Carrington, Respondent's Inspector General's office sent a memorandum to the Johnson Space Center Director requesting a response to the listed concerns. [32] (Tr. 596). Upon receiving a response from the Director at the Johnson Space Center, the Inspector General's office determined it was adequate and closed the investigation. (Tr. 603).

Mr. Carrington testified he informed Complainant that if she was a government employee she would have whistleblower protection under the Inspector General's Act. (Tr. 627).

Jennifer Villarreal

Jennifer Villarreal worked on the PVPD project in 1993 as a technical monitor. (Tr. 684; CX-73). Ms. Villarreal learned of Complainant's concerns with the ETO sterilization process on a Friday and on the following Monday, she contacted her boss, Mr. Seitz, to discuss Complainant's concerns. Ms. Villarreal learned that Complainant had already spoken with him. Mr. Seitz instructed Ms. Villarreal to follow-up with Complainant's concerns and to insure that any procedures being used to assemble the PVPDs were well documented. (Tr. 659).

Ms. Villarreal contacted sources she believed to be experts on sterilization processes: (1) "people from St. John Hospital; (2) AMSCO; (3) the original manufacturers of the separate parts including Hewlett-Packard, Becton Dickinson, and Baxter; (4) the Johnson Space Center toxicologist; (5) the principal investigator Dr. Huntoon; [33] (6) several members of Respondent's Medical Sciences Division; and (7) Martin Marietta's medical doctor in the area. [34] (Tr. 658-659).

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[32] Mr. Carrington testified that the Inspector General's office attempts to provide anonymity when it is requested. (Tr. 597).

[33] A principal investigator is the lead scientist for an experiment. The principal investigator wrote and designed the experiment and obtained its funding. (Tr. 171).

[34] Ms. Villarreal delegated such calls to other employees who assisted in the investigation of this matter. (Tr. 713). She assumed the people contacted by Respondent's team were not sales people but a scientist, a repairman of St. John's Hospital's ETO sterilizer machine, and Bonnie Sapp, a registered nurse supervising the sterilization department at St. John's Hospital. (Tr. 713-714).

On November 15, 1993, Mr. Fitzgerald informed Ms. Villarreal that Complainant had "thrown out" all of Respondent's PVPDs that were being readied for the upcoming flight in January 1994. (Tr. 662). According to Ms. Villarreal, Respondent maintained close supervision of all the flight hardware such that any problem could be traced back if a problem occurred. Because of the importance of Respondent's tracking system, Ms. Villarreal was shocked at Complainant's obvious disregard for Respondent's flight hardware procedures. (Tr. 664).

Once Ms. Villarreal learned that Complainant disposed of the PVPDs, she informed Mr. Seitz. He instructed Ms. Villarreal to downgrade the PVPDs such that they could not be used as flight hardware but could be used for training, "show-and-tells," and demonstrations. (Tr. 665; CX-42). Moreover, new component parts had to be ordered to make the scheduled milestones.[35] A discrepancy report had to be written to document the loss of traceability. (Tr. 666).

Ms. Villarreal explained that she was not concerned that St. John's Hospital did not measure for ETO offgassing since Respondent measured for ETO offgassing and the residual levels. (Tr. 675). According to Ms. Villarreal, Respondent conducted offgassing tests on every piece of hardware that flies on the shuttle. She was unaware whether Respondent used the same testing procedure as used in the sterilization industry. She was unaware whether St. John's hospital measured the ETO residual level. (Tr. 676).

Ms. Villarreal testified that Ms. Kramer often stated that she did not want Complainant "anywhere near my flight hardware." (Tr. 688). Ms. Kramer made this remark on January 17, 1994, two days after Complainant returned to Building 36. (Tr. 687).

Ms. Villarreal testified that she and Ms. Kramer considered Complainant a disgruntled Martin Marietta employee because she was not doing well at work. She further testified that Complainant had poor attendance for a period of a month in 1991. (Tr. 692-693). Ms. Villarreal was upset that Complainant did not inform Respondent's project leader of her extended leave although admittedly Complainant was not required to inform such project leaders of her absence. (Tr. 692-693). In addition, in 1991, Ms. Villarreal requested Complainant to attend meetings in her place, however Complainant did not attend the meetings and did not inform

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[35] Because the PVPDs had to be loaded into the shuttle forty-five days before the scheduled launch date, Respondent had only two weeks to obtain new component parts, assemble the parts, leak test the PVPDs, re-sterilize and pack them into the PVPD kits. In addition, the PVPDs had to go through other safety verification tests and then be shipped to Kennedy Space Center. (Tr. 667).

Ms. Villarreal of her lack of attendance. Ms. Villarreal explained that Complainant's lack of attendance at the meetings may have been due to her extended leave from work. (Tr. 695).

Ms. Villarreal testified that she had the authority to request Martin Marietta personnel to attend meetings because it was within the scope of the contract between Respondent and Martin Marietta. (Tr. 696).

As a result of Complainant's concerns with the PVPD assembly process, Dr. Vaughan Clift, a Martin Marietta medical doctor, recommended that the original process for assembling PVPDs be changed such that full sterile technique be used to assemble the PVPDs. (Tr. 714-715). She explained that the report to the Inspector General became the formal written report of their investigation into Complainant's concerns. (Tr. 716).

James Patrick Hite

James Patrick Hite testified that he worked as a hardware development engineer for Martin Marietta at Johnson Space Center. (Tr. 723-724). Mr. Hite was the acting manager of hardware engineering from October 1993 through January 1994. (Tr. 744). His responsibilities included managing the engineering development of flight hardware for life sciences as well as the employees working on those tasks. (Tr. 745). Mr. Hite was Complainant's second line supervisor. (Tr. 746).

According to Mr. Hite, Complainant worked for Martin Marietta under the SPDEO contract between Respondent and Martin Marietta. The purpose of the contract was for Martin Marietta to develop flight hardware for Respondent's Life Sciences Directorate and to support their science efforts under the life sciences. (Tr. 746). The SPDEO contract was split into large tasks which were then divided into subtasks. The SPDEO contract listed the requirements, objectives, and "manloading" to be performed by Martin Marietta. Mr. Hite testified that Martin Marietta wrote the plans for each subtask detailing the objectives, the manloading, and the schedule for each project. As a second line supervisor, Mr. Hite assigned Martin Marietta employees to the various subtasks. Mr. Hite explained that Respondent was not responsible for assigning Complainant or other Martin Marietta employees to the various subtasks although Respondent did request certain Martin Marietta employees be assigned to particular projects. (Tr. 747-748, 750). Mr. Hite testified that Respondent made most of the employee requests "in person" rather than by e-mail or in writing. In addition, he did not recall any specific request made for Complainant. (Tr. 751).

Mr. Hite was responsible for completing the performance evaluations for all of the employees he supervised. (Tr. 748). He was responsible for monitoring Complainant's compliance with Martin

Marietta's company policy including her scheduled work hours, leave time from work, and completion of assigned work. Mr. Hite had no knowledge whether Respondent supervised Complainant while she worked for Martin Marietta. (Tr. 749).

Mr. Hite testified that Complainant was not an employee of Respondent but of Martin Marietta. She received her salary and the standard employee benefits of medical and dental insurance from Martin Marietta. Mr. Hite explained that Complainant was eligible to participate in Martin Marietta's retirement plan, however, he was unaware whether Complainant participated in the plan. (Tr. 746).

In November 1993, Ms. Villarreal asked Mr. Hite to investigate the rumor that Complainant removed the PVPDs from the clean room to the hallway. (Tr. 727, 754). Once Mr. Hite determined that Complainant did remove the PVPDs from the clean room, he met with Complainant to discuss her actions with the PVPDs. Mr. Hite informed Complainant that she would receive a written reprimand and that she could be dismissed. (Tr. 724-725; See CX-14). Later, Mr. Hite testified that he informed Complainant the letter of reprimand was a "slap on the wrist." (Tr. 736). Mr. Hite testified that he informed Complainant his job position required him to issue the written reprimand. (Tr. 725, 737). At the time the reprimand was issued, Mr. Hite believed no further action would be taken against Complainant for her actions with the PVPDs. (Tr. 740).

Mr. Hite testified that Respondent did not instruct him to issue a reprimand to Complainant. He did not personally notify Respondent of the reprimand issued to Complainant and could not recall whether anyone else informed Respondent of the reprimand. (Tr. 738). He later testified that he may have informed Ms. Villarreal of the reprimand issued to Complainant. (Tr. 741).

Complainant was reassigned to the Agena Building. Mr. Hite testified that Complainant requested to be reassigned to another project and taken off the medical hardware. (Tr. 740). In addition, Mr. Kitterman directed that Complainant be reassigned away from the PVPDs. (Tr. 742). According to Mr. Hite, Dr. Huntoon and Ms. Villarreal did not inform him that they wanted Complainant reassigned. Mr. Hite did not speak with Ms. Kramer regarding Complainant. (Tr. 742).

Mr. Hite testified that he was not instructed to remove Complainant from access to medical hardware, Building 36, Johnson Space Center, or to prohibit her from talking with Respondent's civil servants in the Life Sciences Directorate. (Tr. 740).

Angelene Lee

Angelene Lee has been the experiment systems manager in the

payload and experiment management office of NASA since January 1992. She was responsible for developing experiments proposed by various investigators, working with a team of contractors to refine their scientific requirements, preparing equipment used by the contractors, documentation of procedures, and crew training. (Tr. 801-802).

In November 1993, Ms. Lee worked on a metabolic life sciences experiment set to fly on Mission STS-60. Complainant was assigned by Martin Marietta to the contractor team under Ms. Lee's direction. She explained that Complainant's responsibilities as an experiment engineer were to help finish preparing hardware for the experiment and other various activities. (Tr. 802).

In mid-November 1993, Complainant informed Ms. Lee of her concerns with the preparation of the PVPDs. (Tr. 803). Moreover, Complainant was concerned whether Respondent's human research procedures and policies committee (HRPPC) approved of the procedure regarding the sterility of the hardware. Complainant explained that the procedure for leak testing might have been contaminating the PVPDs more than could be accounted for or corrected with the ETO sterilization. In addition, Complainant mentioned to Ms. Lee her concerns regarding liability. Ms. Lee testified that Complainant used terms like "non-standard medical procedures" and "FDA approvals." (Tr. 804). According to Ms. Lee, Complainant did not raise any environmental concerns with regard to the ETO sterilization process. (Tr. 806). Because Ms. Lee was not involved with designing the procedure to assemble and re-sterilize the PVPDs, she informed Ms. Villarreal of Complainant's concerns. (Tr. 805). Ms. Lee testified that she "passed off" Complainant's concerns to Ms. Villarreal and did no more than some preliminary checking of her own records. (Tr. 806).

On November 15, 1993, Ms. Lee learned that Complainant disposed of the PVPDs that morning. Ms. Lee did not speak to Complainant about her action with the PVPDs. (Tr. 805).

In December 1993, Ms. Lee became further involved with Complainant's concerns when NASA received a request from the Inspector General's office to investigate the methods of sterilization. (Tr. 807). Ms. Lee contacted the vendors of the various component parts and spoke to their technical representatives. She requested information concerning the sterilization process used at the vendors' facilities. Ms. Lee did not recall whether she discussed with the vendors the re-sterilization process used by Respondent. (Tr. 809). She researched documentation and gathered further information to send to the Inspector General's office. (Tr. 807-808).

Ms. Lee testified that she was not upset to perform the research. (Tr. 808). Ms. Lee spent less than thirty hours gathering the necessary research. (Tr. 815). She explained that

she was concerned with the safety of the astronauts and the proper function of the experiments. She wanted to insure they did not "miss something." (Tr. 808). Ms. Lee explained that the research performed proved helpful and NASA made improvements to increase the level of safety in the PVPDs. (Tr. 809). The research was given to Dr. Pool. (Tr. 810-811).

Ms. Lee assumed that Complainant filed the complaint regarding ETO sterilization with the Inspector General's office since she had voiced these concerns to Respondent's personnel in the recent past. (Tr. 811, 813).

Nancy Kennamer

Nancy Kennamer was the contracting officer for the Science Payload Development Engineering and Operations (SPDEO) contract between Respondent and Martin Marietta. As a contract officer, Ms. Kennamer has the "signature authority to authorize the government in contractual actions." The purpose of the SPDEO contract was for Martin Marietta to provide payload experiment management, science management, and payload integration for the science experiment. (Tr. 818-819; See RX-28).

The SPDEO contract is a task order contract. It consists of a statement of work which details everything the contractor is expected to do over the period of the contract. Respondent would issue task orders with specific task direction. The contractor would then respond with a plan detailing the resource used, a time schedule, the projected cost, and a statement explaining how the work would be completed. (Tr. 820; See RX-29). Respondent had to approve the plan. (Tr. 821).

Ms. Kennamer testified that Martin Marietta was responsible for ensuring that the work was performed within the scope of the contract. (Tr. 822). In addition, Martin Marietta's project manager was responsible for hiring and assigning personnel to perform the work required to complete the task ordered. (Tr. 823). The work performed by Martin Marietta under the SPDEO contract was to be performed at the Johnson Space Center and a reasonably close facility. (Tr. 824; RX-30). Ms. Kennamer explained that the work was performed at Respondent's Johnson Space Center because the specific facilities required to perform the work were available. (Tr. 824). Martin Marietta was required to supply all necessary materials to perform the task orders under the SPDEO contract. (Tr. 829).

The SPDEO contract required Martin Marietta to appoint someone as a project manager to have management responsibility for the total contract effort and to receive technical direction from Respondent. In addition, Martin Marietta was required to appoint a functional representative for each of the primary work areas who was responsible for receiving work requests for each particular

area. (Tr. 828; RX-31). Under the SPDEO contract, Martin Marietta was required to submit a management plan which described the manner in which Martin Marietta was going to fulfill its requirements of the contract. (Tr. 829; RX-38).

Ms. Kennamer testified that she interfaced only with Martin Marietta's project manager and the business manager. She learned the status of the task orders and provided feedback to them. (Tr. 830). She explained that Respondent and Martin Marietta personnel worked together under approved task orders. (Tr. 832).

Glenda Allmond

Glenda Allmond was an experiment coordinating specialist while working for Martin Marietta from December 1990 until July 1994 as a permanent employee. She worked in the metabolic lab designing the hardware, preparing for training, and other various activities to prepare for a flight mission. (Tr. 885).

On December 16, 1993, Ms. Allmond learned from Mr. Fitzgerald that Complainant called him requesting information about the number of PVPDs used for training. Moreover, Mr. Fitzgerald told Ms. Allmond that Complainant was trying to stop the next flight mission. (RX-14; See Tr. 849).

Ms. Allmond observed Complainant in Building 36 on January 13, 1994. Later, upon seeing Ms. Kramer in the hallway, Ms. Allmond asked her why Complainant was in the building. (Tr. 851-852). Ms. Allmond testified that she resented Complainant for disposing of the PVPDs because Ms. Allmond was responsible for the PVPDs . (Tr. 864).

Although Ms. Allmond testified that Mr. Seitz instructed her to document her conversation with Mr. Fitzgerald, she testified that she was never asked to observe or make reports about Complainant. (Tr. 857).

David White

David White testified that he was Respondent's contracting officer technical representative for the Martin Marietta contract in 1994. His responsibilities were to ensure that Martin Marietta abided by the contract to support Respondent's Johnson Space Center effort. (Tr. 893-894). Moreover, Mr. White monitored Martin Marietta's compliance with the technical statement of work and the task orders associated with it. (Tr. 895).

Mr. White testified that Complainant was never an employee of Respondent but was an employee of Martin Marietta. (Tr. 898). According to Mr. White, Respondent was not responsible for, nor did it perform, the following personnel duties with regard to the Martin Marietta employees: (1) assign employees to the specific

tasks, (2) supervise, (3) participate in the hiring process, (4) determine salaries, (5) establish working hours, or (6) approve vacation or sick leave. Respondent was responsible for the working conditions under which the Martin Marietta employees performed the work because the work was conducted at Respondent's Johnson Space Center. (Tr. 899-900). Mr. White stated that both Respondent and Martin Marietta conformed to the SPDEO contract and did not attempt to issue work assignments in a manner not approved under the contract. (Tr. 907).

Mr. White explained that personnel of Respondent and Martin Marietta worked together to develop the flight hardware. (Tr. 901). He further explained that the SPDEO contract required them to work together since the work was conducted at Respondent's facility. In addition, Respondent's personnel usually monitored Martin Marietta's work at specific periods during the year and wrote evaluations concerning the performance of Martin Marietta within the contract orders. (Tr. 902-903).

Mr. White testified that the January 14, 1994 memorandum issued to Complainant was not given to him. (Tr. 906).

The SPDEO contract does not permit Ms. Kramer to prohibit anyone from entering Building 36 nor Dr. Huntoon from prohibiting anyone from entering the Johnson Space Center. Mr. White explained that the SPDEO contract does not address such matters because they are administrative activities associated with the administration of the Johnson Space Center. (Tr. 909-910).

Fred Spross

Fred Spross testified that he is the deputy of the bioengineering hardware development office at Respondent's Johnson Space Center. (Tr. 912). In 1994, Mr. Spross was a branch chief of the science operations branch. Mr. Spross was responsible for the operation of the space lab mockup and for developing integration hardware which was used to integrate experiments into the space lab "racks." (Tr. 913).

On January 14, 1994, Mr. Spross attended a meeting to discuss recent budget cuts and the affect on the operational branches. Mr. Spross recalled that Ms. Kramer, Mr. Seitz, and Mr. Proctor attended the meeting. (Tr. 914). In addition, Mr. Spross recalled that Ms. Kramer was upset when she joined the group. She read the January 14, 1994 memorandum to the group and explained to the group that she was upset because Mr. Kitterman put her name in the memorandum. Mr. Spross did not remember whether Ms. Kramer stated that the memorandum was inaccurate. (Tr. 915-916). He later testified that based on Ms. Kramer's words and mannerisms, he inferred that she was upset because the memorandum contained untrue statements along with her name. (Tr. 923).

According to Mr. Spross, Ms. Kramer neither appeared to be boasting about the memorandum nor claim, contrary to Mr. Proctor, that she would have Complainant fired. Moreover, Mr. Spross testified that Ms. Kramer did not mention Complainant's name. (Tr. 916).

Hugh Fitzgerald

Hugh Fitzgerald worked for Martin Marietta in November 1993 at Respondent's Johnson Space Center. On November 15, 1993, upon arriving at work, Mr. Fitzgerald asked Complainant if she knew where the PVPDs were located. She informed him that she threw them away. Mr. Fitzgerald found the PVPDs in a box in the hall outside of the clean room near a recycle box. (Tr. 925). He did not recall whether Complainant explained the reason she placed the PVPDs in the hallway. (Tr. 926). Mr. Fitzgerald informed Mr. Geaslin and Ms. Villarreal of Complainant's actions. (Tr. 926). Mr. Fitzgerald testified that he was unhappy with Complainant's actions because she disposed of the PVPDs by placing them in the hallway. (Tr. 936).

In mid-December 1993, Complainant telephoned Mr. Fitzgerald at home to discuss the sterilization problems and the hardware. According to Mr. Fitzgerald, Complainant made a statement that implied she would get the mission stopped because the sterilization process was not adequate. Mr. Fitzgerald testified that he did not take any action with regard to Complainant's phone call. (Tr. 926-927).

He explained that he considered reporting Complainant's phone call to Martin Marietta management because Complainant could hurt the company "by causing problems without having enough information to justify it." (Tr. 935, ln. 22). Mr. Fitzgerald was not concerned with Complainant's questions to him but he was concerned that she was putting forth an effort to stop the upcoming mission. (Tr. 937-938). Mr. Fitzgerald was concerned about Complainant's concerns because he believed she was questioning an established and accepted procedure of re-sterilization. He was unaware of the different sterilization processes and guidelines used by industry and hospitals. (Tr. 941). Mr. Fitzgerald testified that if he was aware of the different sterilization processes and guidelines, he would have been more understanding of Complainant's concerns. (Tr. 942).

Mr. Fitzgerald testified that neither Mr. Seitz nor anyone else asked him to observe Complainant and report her actions. (Tr. 939). Mr. Fitzgerald believed that Complainant was removed from on-site at the Johnson Space Center before the January 14, 1994 memorandum was issued. (Tr. 949-950). He further testified that he did not see the January 14, 1994 memorandum until the time of the hearing. (Tr. 950). He did not recall distributing the memorandum in Building 36. (Tr. 951).

Dr. Sam Lee Pool

Dr. Sam Pool has been the chief of the medical division at Respondent's Johnson Space Center since 1977. The medical division is responsible for crew health, certification of astronauts for duty as crew members on board airplanes and spacecraft, occupational health for the Johnson Space Center and research into the space physiology of humans in space. (Tr. 967). In addition, Dr. Pool is the alternate chairman of the human research policy and procedures committee. (Tr. 968). Dr. Pool is licensed to practice medicine in Oklahoma and Texas. (Tr. 967).

Dr. Pool managed the activities in Building 37. He testified that for a number of years he has routinely sent hardware to St. John's hospital for re-sterilization although Building 37 houses an ETO sterilization machine. (Tr. 1014).

In December 1993, Dr. Huntoon requested Dr. Pool to conduct an investigation concerning the use of ETO and re-sterilization. [36] Dr. Pool explained that allegations were made to the Inspector General's office that the devices being prepared for the SLS-2 mission were unsafe. (Tr. 967). He submitted his report of the investigation to Dr. Huntoon on December 28, 1993. (Tr. 968; See RX-7; CX-19).

Upon being requested to conduct an investigation, Dr. Pool instructed the personnel supervising the preparation of the devices to research further medical literature regarding the ETO sterilization process. (Tr. 968, 990). Dr. Pool testified that he went to St. John's Hospital to interview the hospital personnel involved with the ETO sterilization. (Tr. 980). In addition, experts in toxicology and microbiology [37] reviewed the sterilization process and provided their input. Lastly, the devices were tested "above that which had been previously done" and a physician provided information of the health incidents [38] on the mission. (Tr. 968-969). Dr. Pool estimated that hundreds of hours were spent gathering all the information required to respond to the Inspector

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[36] Dr. Huntoon was Dr. Pool's first line supervisor and conducted his performance evaluations. (Tr. 982). In addition, Dr. Huntoon was the principal investigator on the PVPDs. (Tr. 983).

[37] Dr. Pool testified that John James and Duane Pierson conducted additional testing on the hardware, however, the testing was not performed until in May 1994. (Tr. 979; See CX-18).

[38] Dr. Pool testified that pre-flight, in-flight, and post-flight medical records of the crew were reviewed. (Tr. 980).

General's investigation. (Tr. 986). According to Dr. Pool, the ETO sterilization process was proper. (Tr. 970).

Dr. Pool reviewed material relating to the toxicity, carcinogenicity, and other effects of ETO, however, he relied primarily on Respondent's toxicological expert and other laboratory personnel for that type of information. (Tr. 981).

Dr. Pool testified that he performed his investigation of the ETO sterilization process in an unbiased and objective manner. (Tr. 982, 1021). According to Dr. Pool, Dr. Huntoon and Ms. Kramer selected the ETO sterilization method for re-sterilizing the PVPDs. (Tr. 984).

At the beginning of the investigation, he met with Ms. Kramer and the employees working on the PVPD project. Ms. Kramer instructed the employees that she wanted the investigation to proceed and to cooperate fully with Dr. Pool. (Tr. 987). Dr. Pool testified that he did not know with absolute certainty that Complainant filed concerns with the Inspector General's office, however, he indicated that he was aware Complainant filed concerns about ETO sterilization. (Tr. 1006). Dr. Pool further testified that he was not concerned with the Inspector General's source of information. (Tr. 1007).

Dr. Pool testified that Complainant's concerns with the levels of ETO on the PVPDs were reasonable based on her education and experience. (Tr. 1042).

John Thorpe James

John James has been the chief scientist in toxicology at Respondent's Johnson Space Center since 1989. He is primarily responsible for toxicological issues as they relate to space flight and protecting the astronauts. Dr. James is certified in toxicology. (Tr. 1044-1045).

Dr. James was not accepted as an expert witness but instead as a fact witness. Dr. James supervised the testing of PVPDs to determine their level of offgassing. (Tr. 1053; See CX-18). The tests were conducted in May 1994 but were not performed on the PVPDs which Complainant moved from the clean room. (Tr. 1054-1055). In June 1994, the same tests were conducted using the same samples. Dr. James testified that the second tests were run to produce greater detailed findings. (Tr. 1093).

Dr. James compared the levels of ETO from the assembled PVPDs to the OSHA standards for exposure to ETO in an industrial setting. The OSHA standard was one part per million which was equivalent to 1.8 milligrams, or 1,800 micrograms, per cubic meter. The tests indicated that the amount of ETO in the spacecraft air would be approximately eighty micrograms per cubic meter. Based on the OSHA

standards, Dr. James determined that the level of ETO offgassing of the PVPDs was negligible [39] and would not jeopardize the health of the crew. (Tr. 1061).

Bill Seitz

Bill Seitz testified that he worked for Respondent as a project engineer and later became a technical manager for the space and life sciences director. (Tr. 1151). Mr. Seitz was the branch chief of the project engineering branch. (Tr. 1152). Ms. Kramer was his supervisor in 1993. (Tr. 1155).

In November 1993, Complainant informed Mr. Seitz that Respondent was processing flight hardware in such a way that placed the astronauts in jeopardy. (Tr. 1151). Although Mr. Seitz believed the procedures being used were proper, he listened to Complainant's concerns and requested her to obtain additional information to insure the procedures were proper. (Tr. 1152). Mr. Seitz testified that he met with some of Respondent's personnel working on the experiment, including Ms. Villarreal, to inform them of Complainant's concerns. He instructed them to investigate the matter fully by checking with the vendors and insuring the procedures were proper for the PVPDs and any other like device. (Tr. 1152).

Based on the research performed by Respondent's personnel, Mr. Seitz determined that the procedures for assembling and re-sterilizing the PVPDs was proper. (Tr. 1154).

At an undetermined time, Mr. Seitz learned that Complainant removed the PVPDs from the clean room. Mr. Seitz did not recall who told him of Complainant's actions with the PVPDs. (Tr. 1153). Mr. Seitz testified that he spoke with management personnel of Respondent and Martin Marietta concerning Complainant's actions instructing them to insure that "this kind of thing didn't happen again." (Tr. 1154).

Mr. Seitz also testified that at an undetermined time he spoke with Complainant regarding her actions with the PVPDs. (Tr. 1163). Mr. Seitz did not become upset with Complainant, but merely informed her that she was in error to remove the PVPDs from the clean room. (Tr. 1164).

Mr. Seitz recalled participating in a meeting on January 14, 1994 with Ms. Kramer. (Tr. 1156). Mr. Seitz did not remember specifically who else attended the meeting. (Tr. 1160). According to Mr. Seitz, he and Ms. Kramer discussed Complainant's

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[39] Dr. James further testified that ETO has never been detected in the space shuttle cabin. (Tr. 1070; CX-56; RX-26-27).

actions of improperly moving the flight hardware and that he stated "we needed to take care of things in that matter." [40] (Tr. 1157). He recalled Ms. Kramer saying that she did not want Complainant around her hardware. (Tr. 1158-1159). Mr. Seitz later testified that he may have informed Ms. Kramer that Complainant should not be around flight hardware because she demonstrated that she would not follow the proper procedure if a problem arose. (Tr. 1202). Mr. Seitz did not recall whether Ms. Kramer stated that Complainant was prohibited from entering Building 36 or Johnson Space Center. Moreover, Mr. Seitz did not recall whether Ms. Kramer stated that she was upset with Complainant because she raised concerns with the ETO sterilization process. (Tr. 1158-1159).

Mr. Seitz testified that in February 1994, he wrote a memorandum in response to the January 14, 1994 memorandum. (Tr. 1178; See RX-33 [41]). Mr. Seitz recalled writing the document, however, he did not recall "a lot about the document" nor why he wrote the document. (Tr. 1176-1177). He could not provide a reason why there were four weeks between the two memoranda. (Tr. 1178). He later explained that he was asked [42] to write the memorandum at an earlier time, but he procrastinated. He testified that it was a coincidence that he wrote the letter on the same day Complainant filed her complaint with the Department of Labor. (Tr. 1178-1179). Mr. Seitz then recanted his testimony and stated that he did not write the letter because someone requested him to, but he wrote it on his own "doing." (Tr. 1179).

Mr. Seitz testified that Ms. Kramer was concerned about Complainant's complaints of the flight hardware and her continuing activity. Mr. Seitz did not clarify what he meant by Complainant's "continuing activity." (Tr. 1186). He did not recall the manner in which Ms. Kramer expressed her anger. (Tr. 1187).

According to Mr. Seitz, he believed Complainant raised her concern with the ETO sterilization process in good faith. (Tr. 1191).

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[40] Mr. Seitz testified that they were discussing the November 1993 removal of the flight hardware incident since Complainant returned to the Johnson Space Center and was around the flight hardware in the clean room. (Tr. 1157).

[41] The February 1994 memorandum states that Ms. Kramer did not instruct Martin Marietta management to prohibit Complainant from entering Johnson Space Center, Building 36, or speaking to Respondent's civil servants. (RX-33).

[42] Mr. Seitz testified that a lawyer, a paralegal, Ms. Kramer, or Dr. Huntoon asked him to write the February 1994 memorandum. (Tr. 1180).

Dr. Carolyn Huntoon

Dr. Carolyn Huntoon testified, by deposition, that she was the center director of Johnson Space Center in January 1994. Dr. Huntoon was responsible for all activities performed at Johnson Space Center related to space flight and to the employees conducting work for space flight. (CX-65a, p. 6). According to Dr. Huntoon, there were approximately 2,000 civil servants and approximately 12,000 contractor employees at Johnson Space Center. (CX-65a, p. 7).

Dr. Huntoon was unaware whether she or any other manager had the authority to prohibit a person from entering Johnson Space Center. (CX-65a, p. 10). She further testified that Ms. Kramer did not have the authority to prohibit employees from entering Building 36. (CX-65a, p. 67).

In December 1993, Ms. Kramer informed Dr. Huntoon that a Martin Marietta employee placed PVPDs in the trash. (CX-65a, p. 35). Dr. Huntoon could not recall whether Ms. Kramer told her the name of the Martin Marietta employee. She instructed Ms. Kramer to keep her informed of the matter. (CX-65a, p. 36). Later in the same month, Dr. Huntoon received a letter from the Inspector General's office listing allegations that the PVPDs were not safely assembled and sterilized. (CX-65a, p. 12). She immediately instructed Dr. Pool to investigate the allegations. (CX-65a, p. 13). At the time Dr. Huntoon received the allegations from the Inspector General's report, she was unaware that Complainant had made the complaint. (CX-65a, p. 19). During Dr. Pool's investigation, Dr. Huntoon was never informed that Complainant filed the complaint with the Inspector General's office. (CX-65a, p. 27). Dr. Huntoon did not recall reading the attachments of Dr. Pool's report, including the Ancestry of Quotes or the Personnel Reliability attachment. (CX-65a, p. 18).

Although Dr. Huntoon was the principal investigator of the PVPD project, she did not recall selecting the ETO sterilization process to be used for the PVPDs. (CX-65a, p. 16). She explained that the project was divided and two divisions were performing the work. The various teams working on the project, which include Respondent and Martin Marietta employees, worked on the project and eventually chose the ETO sterilization process. (CX-65a, p. 17).

Dr. Huntoon was not informed of the specific procedure used to assemble the PVPDs. (CX-65a, p. 38). According to Dr. Huntoon, Respondent developed the procedures for purchasing the hardware, storing and packing it for flight, sterilization, crew training, and testing. Respondent gave this information to Martin Marietta to complete. Because she was never on-site when the work was being performed, she was unaware whether Martin Marietta was performing the work according to the procedures. (CX-65a, pp. 39-40). She testified that she was unaware that there were no written

procedures for assembling the PVPDs at the time Complainant filed her complaint with the Inspector General's office. (CX-65a, p. 95).

In February 1994, Dr. Huntoon received a memorandum from Ms. Kramer regarding Complainant's prohibition from entering Building 36 and the Johnson Space Center. (CX-65a, pp. 41-42; See CX-4). Dr. Huntoon believed Ms. Kramer's memorandum indicated that she wanted Dr. Huntoon to contact Mr. Ron Wade, security personnel, and offer her support to Ms. Kramer's directive prohibiting Complainant from entering Building 36. (CX-65a, p. 43).

Sometime in January 1994, Ms. Kramer informed Dr. Huntoon that Complainant was reassigned to work off-site. (CX-65a, pp. 26, 100, 105).

Dr. Huntoon did not recall Ms. Kramer expressing any opinion regarding the complaint filed by Complainant with the Inspector General's office. (CX-65a, p. 62).

Daniel S. Goldin

Daniel Goldin testified, by deposition, that he has been the Administrator for Respondent since April 1, 1992. (CX-66a, p. 6). Mr. Goldin was not informed of the concerns and complaints about the use of ETO and its potential affect on the space shuttle. (CX-66a, pp. 7, 31, 32, 35). In addition, Mr. Goldin testified that he had not seen any documents related to Complainant's concerns with ETO or her removal from Building 36 and Johnson Space Center. (CX-66a, pp. 19, 38). Mr. Goldin had no knowledge of Ms. Kramer or her position within Respondent's agency. (CX-66a, p. 12).

Expert Testimony

James Gibson, Jr.

James Gibson, Jr., testified that he has a bachelor of science degree in chemical engineering. (See CX-32). His prior job positions from the time he obtained his degree include the following: (1) process development engineer manufacturing pharmaceuticals for Warner Lambert Corporation; (2) scientist for Johnson & Johnson responsible for process development for ETO radiation and steam sterilization; [43] (3) project manager in the area of sterilization processes for intra-venous solutions and

[43] Mr. Gibson's responsibilities included developing and implementing "processes" for the various devices the company was manufacturing, installation of sterilization equipment, basic research for the effect of sterilization on various materials, and trouble-shooting the sterilization processes used by the company. (Tr. 336).

devices [44] for Abbott Laboratories; (4) sterilization engineer; (5) manager of the sterilization department for Johnson & Johnson responsible for managing laboratory functions, microbiology, chemical testing, residue testing, and implementing sterilization processes at the manufacturing facility; (6) consultant with Johnson & Johnson responsible for trouble-shooting problems throughout the world and representing Johnson & Johnson to write standards for the sterilization processes, and training in the area of sterilization; (7) supervisor of a small group "responsible for sterilization throughout the United States for Johnson & Johnson Medical"; and (8) self-employed consultant performing process development work, training, trouble-shooting, auditing of facilities, laboratories, manufacturing facilities, and preparing protocols for validation of sterilization processes. (Tr. 336-339).

Mr. Gibson testified that he has been a member of the Association for the Advancement of Medical Instruments (AAMI) for twenty-five years. At the time of hearing, Mr. Gibson was the co-chair of a working group for industrial ETO sterilization which writes the standards for the medical device industry and drug industry. [45] Mr. Gibson was a faculty member of the Pharmaceutical Drug Association. Moreover, Mr. Gibson assisted in drafting a specific safety standard for the "use of ETO and sterilization and fumigation." (Tr. 340, ln. 21).

Mr. Gibson was accepted as an expert, without objection, in sterilization process and ETO sterilization process. (Tr. 342).

Mr. Gibson explained that ETO is a basic chemical manufactured from petroleum. ETO is used for sterilization in hospitals and industrially and is regulated by the Department of Transportation and the Food and Drug Administration. It is classified as a poison. (Tr. 343).

The levels of ETO in sterilized drugs and devices must be within the limits set by the Food and Drug Administration. (Tr. 343). In addition, the Occupational Safety and Health Administration (OSHA) has set two standards for the amount of ETO to which personnel may be exposed in the work environment. The Environmental Protection Agency (EPA) promulgated the National

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[44] The devices were ETO sterilized and the solutions were steam sterilized.

[45] These standards are consensus documents that are agreed to by industry, hospitals, and regulators. Mr. Gibson explained that these standards are considered guidelines and become enforced by the FDA when the standards are adopted by industry and become industry norms. (Tr. 346).

Admission Standard for Hazardous Air Pollutants which regulates ETO emissions from facilities. (Tr. 344).

The AAMI has published two sets of standards for ETO exposure for hospitals and industry. The hospital standards address loading the sterilizers, periodic calibration of the equipment, and performing tests to monitor the ETO residual levels and sterility. Hospitals are not required to perform the ETO residual and sterility tests. (Tr. 368-369).

Mr. Gibson testified that there are a number of health risks involved when a person is exposed to a certain level of ETO. Acute exposure to high levels will cause nausea, vomiting, redness of the skin, and chemical burns. (Tr. 346). Mr. Gibson explained that there have been reports of spontaneous abortions, breast cancer, and neurological problems. In addition, ETO is known to cause chromosomal aberrations. (Tr. 347).

There are two health risks which may occur if a medical device is not properly sterilized when used. The first health risk is that the patient can become infected. The second health risk occurs when the ETO residuals from the hardware are injected into the body or remain on the skin. The patients on which the non-sterile hardware is used can develop any of the problems associated with ETO. (Tr. 348-349).

Mr. Gibson testified that the industrial practices for ETO sterilization consists of performing a validation of the process. The validation process consists of running repetitive cycles in the sterilizer with defined product loads, and demonstrating that by reproducing this process the accepted level of sterility is reached. (Tr. 347-348).

The sterilization cycles are usually monitored by biological indicators. Biological indicators are preparations of large numbers of very resistant microorganism spores. A relationship is drawn between the death of those biological indicators and the sterility of the product. (Tr. 348). According to Mr. Gibson, this process guarantees sterility. (Tr. 348).

Mr. Gibson testified that almost all materials absorb ETO gas when they are ETO sterilized. (Tr. 349). The gas must be removed from the medical hardware and reduced to safe levels. The gas is usually removed in a separate room or chamber from the sterilizer. The devices are stored for extended periods of time at higher temperature. (Tr. 349). In industry, manufacturers test the hardware to determine the levels of offgassing. (Tr. 350). The amount of time the hardware offgasses is dependent on the material composition of the device sterilized, the thickness of the material, the temperature at which offgassing occurs, and the type of packaging used for the hardware. (Tr. 352, 355). Mr. Gibson explained that certain plastics retain ETO better than other

materials. (Tr. 352). Depending on the composition of the product, offgassing, as part of the sterilization procedure, could take hours, days, or weeks. (Tr. 355).

Mr. Gibson explained that in industry, medical hardware is safe for patient use when the manufacturer ships it to the user. The safe standard for the acceptable amount of ETO offgassing depends on the use of the hardware. The standard for ETO is no more than twenty-five parts per million if the device will come in contact with blood or "compromised tissue." The standard is 250 parts per million when the device will come in contact with mucosa or uncompromised tissue. (Tr. 350). According to Mr. Gibson, manufacturers are required to guarantee the sterility of a device. (Tr. 360).

Hospitals use ETO for sterilization of medical hardware. Hospitals use sterilizers which usually have one or two pre-programmed cycles. The sterilizers have a set of generic instructions and pre-programmed cycles which do not enable the users to make any changes with the sterilization process except to select a different exposure time. (Tr. 356). Hospital personnel do not generate any data to prove when the biological indicator is killed and the hardware is actually sterile. (Tr. 357). Mr. Gibson explained that the manufacturer of the sterilizer builds in a cycle that is acceptable for most typical devices for sterilization, however, there is no guarantee that any particular device is sterile. He explained that hospitals do not generate the data to determine sterility because it is time consuming and expensive. (Tr. 358). In addition, hospital personnel do not monitor the residual levels of ETO that remain on the hospital equipment. (Tr. 367).

Mr. Gibson compared the ETO sterilization process conducted by St. John's Community Hospital on the assembled PVPDs and the following manufacturers of the separate component parts of the PVPDs: (1) Hewlett-Packard, (2) Baxter Healthcare Corporation, and (3) Becton Dickinson. [46] (Tr. 359; See CX-22). St. John's Hospital has a shorter exposure time of one hour and forty-five minutes compared to Hewlett-Packard's exposure time of eight to ten hours and Baxter Healthcare's exposure time of four hours. Mr. Gibson explained that the two manufacturers would not run a cycle that long unless it was required to guarantee sterility. (Tr. 360).

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[46] Becton Dickinson did not provide time limits for exposure and aeration time. Instead, the report listed these times as "dependent on strength of source." (CX-22). Aeration occurs when the chamber is purged with filtered clean air that is within a regulated cycle which accelerates the evacuation of ETO that might be a residual. (Tr. 1105).

In addition to the varied exposure times, Mr. Gibson testified that the aeration time for the hardware varies. Hewlett-Packard has a minimum aeration time of sixteen hours and Baxter Healthcare has an aeration time of seventy-two hours. St. John's Hospital reported an aeration time of twelve hours. (Tr. 361; CX-22). Mr. Gibson explained that the manufacturers would aerate medical hardware only for the amount of time required to reduce the residual ETO to a safe level. (Tr. 361).

Mr. Gibson explained that St. John's Hospital did not appear to consider the fact that an assembled device was being sterilized rather than the separate component parts. (Tr. 361). He explained that by assembling the component parts, Respondent manufactured a new medical device which was more complicated to sterilize because the tubing sets are connected to the pressure dome which would probably require more time for moisture and the ETO to get into the interior of the device to sterilize. Furthermore, more time would probably be required for the ETO to offgas from the interior of the device for the same reasons. (Tr. 362).

Mr. Gibson opined that the sterilization process used at St. John's Hospital does not appear as effective as the industrial processes and he expressed doubt whether the PVPDs were actually being properly sterilized by the hospital. (Tr. 361, 365).

Mr. Gibson testified that St. John's Hospital's sterilization process appears to be deficient based on the ETO exposure time and aeration time. He explained that St. John's sterilization process probably results in too high ETO residual levels on the devices which may result in problems associated with ETO exposure as discussed above. (Tr. 370). Mr. Gibson further explained that St. John's Hospital does not provide adequate time for proper offgassing to occur. Because the manufacturer of the separate component part required a longer aeration time, Mr. Gibson testified that he had to assume the longer amount of time was required because a business would not delay inventory for any longer than is necessary. (Tr. 372).

According to Mr. Gibson, in the industry, medical hardware is removed from the "manufacturing flow" when its sterility is compromised or questioned. The device is removed to insure that it does not accidently continue in the manufacturing process and get used. Similarly, the standard practice in hospitals is to segregate a medical device to a "controlled condition" when its sterility is compromised or questioned. (Tr. 384).

Mr. Gibson testified that assembling the PVPDs in a room other than an operational clean room would not be acceptable in the industry because the assembled final product would be contaminated such that the contamination level could not be determined and it would be difficult to determine if the sterilization process was effective. In addition, placing the assembled product in non-

sterile water and using employees not properly garbed to assemble the product would be poor practice for the reasons mentioned above. (Tr. 395-396). Mr. Gibson expressed concern with the sterility of the device and the residual ETO level unless the devices were tested after the sterilization process to determine the residual ETO levels. (Tr. 396).

Mr. Gibson expressed concern about using medical hardware in a space shuttle cabin that contained sixty-five cubic meters of air if it was not adequately offgassed during the sterilization process. (Tr. 396). If the device was not adequately offgassed, it would continue to offgas in the shuttle cabin which would expose personnel to a concentrated amount of ETO in a room with restricted air volume. (Tr. 397). According to Mr. Gibson, a person with a reasonable degree of knowledge could reach the same conclusions he did and in good faith be concerned about the sterility, the residual ETO level and offgassing if the PVPDs were assembled in a non-operational clean room and re-sterilized using a hospital sterilization process. (Tr. 397-398, 418, 420). Moreover, Mr. Gibson agreed that it would be reasonable for a person to remove the devices from the "flow of material" such that they would not be used because the manner of assembly and re-sterilization process was questioned. (Tr. 398).

Mr. Gibson explained that St. John's Hospital's certificate of compliance does not guarantee that the PVPDs were sterile or contained a safe level of ETO residuals. (Tr. 420). The certificate merely indicates that the hospital was using a standard sterilization cycle. The biological indicator only indicated that the sterilizer is working properly but does not indicate whether a particular device was adequately sterilized because there was no data to prove proper sterilization. (Tr. 420).

Lavonna Bonnie Sapp

Lavonna Sapp testified that she has been the director of "perioperative" services at St. John's Hospital for eleven years. She supervises five departments, including sterile processing. She is a registered nurse. For the past thirty-two years, Ms. Sapp has worked in various hospitals with sterilization processes. (Tr. 1100-1101). Ms. Sapp further testified that she has been a member of an association of operating nurses which is a nationally recognized authority for sterilization processes. (Tr. 1115). At an undetermined time, Ms. Sapp worked with the commercial application of ETO when she worked with "Davis & Geck." (Tr. 1148).

Ms. Sapp testified that in 1993, Respondent used St. John's Hospital to sterilize PVPDs. (Tr. 1102). Ms. Sapp explained that because the hardware came from a place outside of the hospital, she contacted the manufacturers of the component parts, Hewlett-Packard and Baxter, to validate the method of ETO sterilization. (Tr.

1103). According to Ms. Sapp, she sterilized the PVPDs as recommended by two of the three manufacturers of the component parts. (Tr. 1103). Ms. Sapp did not discuss approval of the ETO sterilization process by Becton Dickinson, the third manufacturer of the component parts.

St. John's Hospital is a Joint Commission fully accredited hospital and follows regulated standards for sterilization. Ms. Sapp explained that the Joint Commission is a national accrediting body that accredits health facilities, including its sterilization procedures. (Tr. 1110, 1127).

The PVPDs are sterilized for one hour and forty-five minutes after which ETO is evacuated and the chamber aerated in two processes which lasts a total of three hours and forty-five minutes. Ms. Sapp explained that the PVPDs were aerated according to a standard set by OSHA. (Tr. 1104-1105, 1127). According to Ms. Sapp, OSHA set such standards for ETO sterilization as the type of sterilant used, the time and temperature used for sterilization, the shelf-life of the device, the monitoring process for use of the devices, the process by which the ETO filled tanks are changed, and other various procedures. (Tr. 1128).

Ms. Sapp testified that because ETO could permeate the internal orifices of the PVPD, it could reach the entire interior of the PVPDs extending through the tubes and into the dome. (Tr. 1135). However, she explained that the PVPDs would not be sterile after the sterilization process if any amount of water remained in them from the leak test performed by Respondent. (Tr. 1136).

According to Ms. Sapp, the PVPDs were sterile based on the bacteriological monitoring item that was placed in the sterilizer along with the PVPDs. The biological monitoring is a bacillus stearothermophilus that was in a biological tube subjected to the ETO sterilization process. She explained that the bacteriological monitoring item was prepared in a manner similar to the PVPDs and placed in a similar type environment as the PVPDs. Once the sterilization cycle was completed, there should be a 100 percent kill in the biological item. The biological item was then monitored against a biological monitor that had "no kill" at twelve, twenty-four, and forty-eight hours. (Tr. 1106, 1132).

The hospital could not determine, by testing the devices, whether the PVPDs were sterile or proper offgassing was accomplished. Instead, the hospital personnel performing the ETO sterilization wore a badge that monitored whether there was an ETO leak in the environment. (Tr. 1107). In addition, the sterilizer has an automatic shutdown function and alarm system if too much sterilant was present or a leak occurred. (Tr. 1108). The unit performed a self-check as it went through the sterilization cycle. (Tr. 1144).

Ms. Sapp testified that the ETO sterilizer was commonly used at St. John's Hospital to sterilize products such as lenses inserted into the eye, prostheses, and glass. (Tr. 1108). She further testified that different standards for ETO sterilization apply to industry and to hospitals. Because the chambers used in industry are larger, they hold more devices and require more ETO for the sterilization process, however, the coefficient would remain the same per item. (Tr. 1109). According to Ms. Sapp, the quality of sterility is the same from the hospital and industry. (Tr. 1110).

Ms. Sapp testified that industry and hospital ETO sterilization procedures should not be compared because the factors which affect the processes vary and cannot be accurately compared to reflect a difference in the quality of sterilization between hospital and industry procedures. The number of devices being sterilized and the size of the sterilization chamber affect the sterilization process such that varying processes are used to sterilize the devices. (Tr. 1113-1114). The amount of sterilant is determined by the size of the chamber and the amount of devices being sterilized. (Tr. 1130). The manufacturer of the hospital sterilization ETO unit pre-sets the parameters for injection of ETO into the chamber and provides an instruction booklet for sterilizing devices. (Tr. 1129). The instruction booklet indicates the proper parameters for various devices. (Tr. 1130).

According to Ms. Sapp, the certificate of compliance, issued by an unknown agency, indicates that St. John's Hospital operated the ETO sterilization unit in accordance with the manufacturer's instructions and the monitoring process. Moreover, Ms. Sapp testified that the certificate of compliance indicates that the item would be sterile. (Tr. 1132).

According to Ms. Sapp, "reuse" of an item is anything that has been contaminated by being "used in the field." She testified that this standard definition of reuse of medical devices is found in the "Operating Room Nurses Association, Standards of Policies and Procedures, 1997." (Tr. 1114-1116).

The hospital ETO sterilization unit is monitored monthly to observe the entire sterilization cycle. Air samples are tested weekly to determine whether a leak of ETO has occurred. The sterilization personnel are monitored quarterly. Ms. Sapp did not explain the monitoring process for the sterilization personnel. (Tr. 1117).

Contrary to Mr. Gibson, Ms. Sapp testified the hospital can guarantee the sterility of a medical device based on the biological monitoring which is sterilized along with the product. Ms. Sapp explained that the medical device packaging after sterilization, before being opened, can indicate that the device has been exposed

to ETO and that the temperature has been reached for this exposure. (Tr. 1130).

Ms. Sapp testified that AAMI establishes the standards for medical devices such as the ETO sterilization unit. (Tr. 1143). She further testified that St. John's Hospital's ETO sterilization unit meets the standards set by AAMI. (Tr. 1143). The machine is calibrated every month by the vendor. (Tr. 1143). The machine has never been recalibrated. (Tr. 1144).

Other Evidence

Science Payload Development Engineering and Operations Contract (SPDEO)

The Science Payload Development Engineering and Operations Contract (SPDEO) is the services/work contract between Respondent and Martin Marietta. The SPDEO contract is divided into three parts: Part one is "Schedule" and includes such sections as the statement of work, contract administration data, and special contract requirements; Part two is "Contract Clauses"; and Part three is "List of Documents, Exhibits, and Other Attachments." (RX-38).

Upon review of the entire SPDEO contract, including modifications, the "Statement of Work" listed the major functions for which Martin Marietta provided support services: (1) project management and control, (2) project payload management and development, (3) flight systems engineering, (4) data systems development and operations, (5) project science support, (6) project payload integration and verification, (7) operational training, (8) mission operations support, and (9) facility/ground systems engineering and operations. (RX-38, Part 1, clause 1.0). Martin Marietta was responsible for completing task orders which consisted of all activities necessary to perform all assigned missions for both the Space and Life Sciences Directorate and the New Initiatives Office, including any current and future manned and man-tended missions. The contract listed the following typical missions for which Martin Marietta was to provide support: (1) dedicated life sciences missions; (2)Space Station mission increments, (3) the biomedical monitoring and counter-measures project, (4) small and rapid response payloads, (5) crew healthcare system, and (5) cosmic dust collection facility. The following activities were required of Martin Marietta to be performed for the Life Sciences Project Division: (1) develop and provide flight hardware, ground support equipment, and data systems and facilities, (2) support payload design, test, and integration, and (3) support all operational aspects of NASA-approved programs for flight missions. (See RX-38, Pt. 1, Introduction, p. C-1-A).

In accordance with the SPDEO contract, Martin Marietta was responsible for project management, administration, and performance

of the tasks to be completed under Part one of the contract. (RX-38, Pt. 1, cl. 2.2.1). Martin Marietta was to provide "strong management control over each area to assure that all work" was accomplished on time, within budget, and to assure that all work met program requirements. In order to provide management control, Martin Marietta was to provide Respondent with a "Life Sciences Project Management Plan and individual task management/implementation plans for specific subtasks." (RX-38, Pt. 1, cl. 2.1). Martin Marietta was required to continually develop, operate, maintain, upgrade, and improve management control systems. In addition, Martin Marietta was required to analyze anticipated trends and problems, and make recommendations to increase efficiency, improve operations, and reduce costs. (RX-38, Pt. 1, cl. 2.2.4).

Martin Marietta was responsible for providing all resources needed to plan, schedule, prepare, and process concurrent payloads on multiple missions. Payload planning consisted of developing payload schedules and profiles to optimize the use of mission resources to achieve program objectives. Martin Marietta was required to perform "planning analysis and requirements definition for approved life sciences experiments." In addition, Martin Marietta had to perform engineering analysis of candidate life sciences experiments. This included "the definition of new flight hardware and assessing the compatibility of proposed experiments with existing or planned hardware." (RX-38, Pt. 1, cl. 3.1).

The SPDEO contract required Martin Marietta to assist the principal investigators in experiment definition, including collection of engineering data, flight interface information, and developing pre-flight experiment data requirements and validation criteria. (RX-38, Pt. 1, cl. 3.1.1; See cls. 3.1.4, 5.1). Because the life sciences experiments were generally proposed and conducted by scientists who were unfamiliar with Respondent's requirements and management techniques, Martin Marietta was to assist the principal investigators to . . . assure proper use of flight hardware equipment, and compatibility between science requirements, program requirements, mission resources, vehicle interfaces, and vehicle/crew resource limitations. (RX-38, Pt. 1, cl. 3.1.2). Martin Marietta was the functional contact with investigators with regard to experiment data requirements. This function required extensive coordination with experiment technical monitors, support scientists, the data groups within the Life Sciences Project Division, and Martin Marietta employees. (RX-38, Pt. 1, cl. 5.1). Martin Marietta was to provide the appropriate training for data systems and other personnel on the use of the hardware and software with which Martin Marietta worked. (RX-38, Pt. 1, cl. 5.3.2).

All Life Sciences Project Division flight experiments were to be managed by Martin Marietta. (RX-38, Pt. 1, cl. 3.2). Martin Marietta was to provide experiment support teams for each project to assure it met the science requirements, Respondent's safety

requirements, and was delivered timely and within budget. (RX-38, Pt. 1, cl. 3.2.1). The experiment manager from the experiment support team was required to submit periodic status reports to Respondent for all experiment activities. (RX-38, Pt. 1, cl. 3.2.2.6).

As part of the design and development process, Martin Marietta was required to prepare a reliability plan to evaluate hardware reliability through analysis, review, and assessment. The plan was to be submitted monthly to Respondent. (RX-38, Pt. 1, cl. 2.3.5(b)). In addition, Martin Marietta was required to develop, implement, and manage a comprehensive quality program, including quality assurance and engineering. (RX-38, Pt. 1, cl. 2.3.5(c)).

Martin Marietta was responsible for operating and maintaining the Management Information System to insure that the data for all tasks was current. Martin Marietta was required to maintain division and branch action logs, configuration control logs, logistics, tracking and status reports, and other required data. (RX-38, Pt. 1, cl. 2.2.4; See cl. 2.3.3). In addition, Martin Marietta was required to develop an information management plan to identify the documentation requirements that defined, managed, and supported life sciences payloads. Furthermore, Martin Marietta was required to establish, operate and maintain a documentation control system which identified, controlled, prepared, reproduced, stored, and distributed Life Sciences Project Division documents, including all experiment related scientific, engineering, technical, management, and program administration. (RX-38, Pt. 1, cl. 2.3.2; See cl. 2.3.7.2).

In accordance with the SPDEO contract, Martin Marietta was responsible for providing management, professional, scientific, and engineering staffs necessary to perform the listed tasks in Part one of the contract. Although Marietta reported this information to Respondent, Martin Marietta was specifically required to determine the required skill mix, skill level, and manpower for the tasks to be completed. (RX-38, cl. 2.2.5). The contract does not indicate that Respondent had authority to request particular employees be assigned to the tasks performed by Martin Marietta. (RX-38). Martin Marietta was responsible for managing all of the Life Sciences Project Division flight experiments and to provide expertise in several scientific and engineering disciplines. (RX-38, cl. 3.2). Martin Marietta was responsible for developing and maintaining a plan to assure the compliance of flight equipment to level 1 through level 3 requirements including safety and design standards. A requirements review guide was to be developed to help the evaluation of critical design factors associated with the development of life sciences flight hardware/software. (RX-38, Pt. 1, cl. 2.3.8).

The SPDEO contract required Martin Marietta to develop, manage, and operate an inventory control system for Life Sciences

Projects Division equipment in accordance with approved standards for government property. Martin Marietta served as property custodian of Government property and was required to follow established procedures for controlling, managing, and accounting for government property. (RX-38, Pt. 1, cl. 4.5.2). Martin Marietta was required to perform tasks in such a manner to insure the protection of personnel, property, hardware, and the environment. In accordance with Respondent's policies and requirements for hazard reduction, Martin Marietta was required to develop and implement risk management techniques, including risk assessment. (RX-38, Pt. 1, cl. 2.3.5).

Martin Marietta was required to develop and implement a procurement management system capable of supporting procurement activity as needed to perform the assigned tasks. The procurement management system was to provide for the selection and technical direction of all types of procurements including inter-divisional, subcontractor, and vendors. Moreover, Martin Marietta was required to evaluate potential suppliers, maintain procurement records, submit small business and small disadvanged business reports, and assure the technical, quality, business, and management performance of all subcontractors and suppliers. (RX-38, Pt. 1, cl. 2.3.4).

Martin Marietta was responsible for developing hardware and providing support for the "flight hardware requirements definition. During definition, Martin Marietta was to review the science requirements, survey the market, evaluate commercial candidates, and provide recommendations on whether to flight qualify a commercial device or to begin a new development." (RX-38, Pt. 1, cls. 4.2.1, 4.3). [47] In addition, Martin Marietta was to supply engineering support to the Life Sciences Project Division flight and ground hardware, including trouble shooting and repair during pre-flight and post-flight integration and testing. (RX-38, Pt. 1, cl. 4.4). All new flight hardware was to include a hardware development plan used to assess the advisability of proceeding with development and to determine the method of acquisition. (RX-38, Pt. 1, cl. 4.2.2).

Martin Marietta was responsible for the development and operation support of the Life Sciences Projects Division facilities to support all the activities defined in Part 1 of the SPDEO contract. (RX-38, Pt. 1, cl. 10.1).

As a contractor with a federal government agency and in accordance with the Service Contract Act, Martin Marietta was required to provide the minimum hourly compensation and employee

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[47] New hardware to be developed included a portable blood pressure system. (RX-38, Pt. 1, cl. 4.3).

fringe benefits [48] listed in the Register of Wage Determinations. (Pt. 2, Section I, cl. 1.6).

The Contentions of the Parties

Complainant contends that her claim against Respondent is regulated by the Clean Air Act. Moreover, Complainant contends that she is an employee of Respondent and is protected from retaliatory actions by Respondent under the Clean Air Act.

Respondent contends that Complainant's claim is not regulated by the Clean Air Act. Furthermore, Respondent contends that Complainant is not its employee but an independent contractor employed by Martin Marietta.

Complainant further contends that she engaged in protected whistleblower activity, about which Respondent had knowledge and retaliated against her therefor.

Respondent further contends that Complainant did not engage in protected activity nor did it take adverse action against Complainant.

III. DISCUSSION

A. Applicability of the Clean Air Act

Respondent contends that Complainant is not protected by the employee protection provisions of the Clean Air Act because her claim is not prescribed in the scope of the Clean Air Act. Respondent argued that the Clean Air Act was enacted by Congress to regulate and control air pollution by regulating emissions into the atmosphere at particular sources and Complainant's concerns did not involve air pollution or a release of contaminants into the atmosphere, but rather into a space capsule and a laboratory. Respondent further argued that Complainant did not have a reasonable belief that her concerns and activities relating to the release of ETO were protected under the employee protective provisions of the Clean Air Act.

Complainant contends that her claim is regulated by the Clean Air Act because of the potential harmful effects to the astronauts and laboratory workers from the inhalation or absorption of ETO which offgassed into the shuttle cabin air and the laboratory. In addition, Complainant argues that her claim is regulated by the Clean Air Act because she, in good faith, reasonably believed that

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[48] The benefits include life insurance, accident insurance, health insurance, sick leave, civic and personal leave, pension plans, severance pay, savings and thrift plans, vacation leave, and holiday leave.

Respondent violated the Clean Air Act by allowing St. John's Hospital to improperly sterilize the PVPDs which were later destined to be placed on the space shuttle for space flight.

Prior to the administrative hearing, the Secretary ruled that Complainant stated a claim under the Clean Air Act when she filed her complaint against Respondent. Stephenson v. NASA, et. al., Case No. 94-TSC-5 (Sec'y July 3, 1995). The Secretary held that Complainant's consolidated complaint was sufficient to bring this matter within the purview of the Clean Air Act because it indicated her concern for the astronauts based on the potential exposure to ETO and Freon gas within the space capsule.

The doctrine of collateral estoppel precludes a party against whom an issue has been decided in a prior action from re-litigating its position in a subsequent proceeding. Parklane Hosiery Co. v. Shore, 439 U.S. 322, 326, n.5 (1979); Ortiz v. Todd Shipyards Corp., 25 BRBS 228, 233 (1994). The doctrine of collateral estoppel is applicable in administrative proceedings. See United States v. Utah Construction & Mining Co., 384 U.S. 394, 421-422 (1966). Because the Secretary decided that Complainant has stated a claim under the Clean Air Act, this issue is moot and therefore, need not be discussed further since the Secretary's determination is accepted as the law of the case. [49]

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[49] Notwithstanding the Secretary's order dated July 3, 1995, it is questioned whether the Clean Air Act applies to this claim since it cannot be determined, based on a plain reading of the statute, if Congress intended to regulate negligible amounts of ETO released into an environment. Moreover, it cannot be determined whether Congress intended to regulate offgassing from transportable medical hardware, rather than a stationary particular source, into a restricted environment such as a shuttle cabin or laboratory. It is unknown whether Congress intended to regulate the release of contaminants only into the outside environment where the pollution can drift from city to city and affect a large geographic area and a large number of people.

Furthermore, it should be noted that the PVPDs were placed into the shuttle 45 days prior to launch which would provide additional time for the hardware to offgas. As the record demonstrates, ETO was never found in post-flight air samples taken from the shuttle cabin, and there is no record evidence that ETO was found in the laboratory air. (Tr. 1070). Lastly, Complainant's concerns with the effects from intravenous use of the PVPDs is arguably not an environmental issue but a medical/occupational issue. Tucker v. Morrison & Knudson, Case No. 94-CER-1 (ARB Feb. 28, 1997).

Even in light of the above mentioned concerns, the conclusion that Complainant's claim comes within the purview of the Clean Air Act may also be supported under the test

B. Complainant's Employment Status

Complainant contends that she is Respondent's common law employee as a joint employer with Martin Marietta, or Respondent had control over her direct employer, Martin Marietta, such that Respondent controlled the terms and conditions of her employment. Complainant argued that during the operation of the SPDEO contract, Respondent actually controlled several aspects of her employment conditions such that Respondent was her common law employer. Complainant contends that she is protected from Respondent's retaliatory actions under the employee protection provision of the Clean Air Act as an employee of Respondent.

Respondent contends that Complainant is not a common law employee within the employee protection provision of the Clean Air Act. Moreover, Respondent contends that it did not have control over the terms and conditions of Complainant's employment. Respondent argued that under the SPDEO contract, Martin Marietta was an independent contractor providing support services for Respondent. Respondent further argued that Martin Marietta was solely responsible for performing the effort under the contract.

The Clean Air Act prohibits an "employer" from discharging or discriminating against any employee because the employee engaged in protected activities. 42 U.S.C. § 7622(a). The Clean Air Act, in pertinent part, states:

> (a) No employer may discharge any employee or otherwise discriminate against any employee with respect to his compensation, terms, conditions, or privileges of employment because the employee (or any person acting pursuant to a request of the employee) [participated in whistleblower activities]...

42 U.S.C. § 7622(a). Once an employee believes that she has been discriminated against in the work place, the Clean Air Act provides that she may file a complaint with the Secretary of Labor within thirty days of the violation. Section 7622(b)(1) provides the following, in pertinent part:

> (1) Any employee who believes that he has been discharged or otherwise discriminated against by any person in violation of subsection (a) of this section may . . . file a complaint with the Secretary of Labor alleging such discharge or discrimination . . . .

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articulated in Minard v. Nerco Delamar Co., Case No. 92-SWD-1 (Sec'y Jan. 25, 1994) that Complainant reasonably believed Respondent violated the Clean Air Act.

42 U.S.C. § 7622(b)(1). The term "person" includes an individual, corporation, partnership, association, state, municipality, political subdivision of a state, and any agency, department, or instrumentality of the United States and any officer, agent, or employee thereof. 42 U.S.C. § 7602(e). However, as the statute indicates, it prohibits only an employer from discriminating against an employee for whistleblower activity notwithstanding the provision that an employee may file against any person, employer or non-employer, in violation of § 7622(a).

Initially, it must be resolved whether Complainant may file a complaint against "any person" as defined by the Clean Air Act, or whether she can file a complaint against only her employer. If Complainant can only file a remediable complaint against an employer, it must be determined whether Respondent is Complainant's employer within the meaning of the Clean Air Act. If Complainant's complaint is proper, the last question to be resolved is whether Respondent discriminated against her for any participation in whistleblower activity.

The plain language of the employee protection provision of the Clean Air Act suggests that Congress intended to protect employees from discriminatory acts of their employers. The section is titled "Employee protection," and the substantive portion of the section uses the terms "employee" and "employer" throughout the paragraph. Next, the prohibitions contained in § 7622(a) relate to employment activities which occur in an employer/employee relationship. Lastly, the remedies provided by the statute are employment-related such that a complainant who successfully litigated her case against a non-employer could not be granted any or all of the remedies provided. The Clean Air Act provides that the Secretary of Labor shall order the person who committed the violation to (1) take affirmative action to abate the violation, and (2) reinstate the complainant to his former position together with the compensation (including back pay), terms, conditions, and privileges of her employment. 42 U.S.C. § 7622(b)(2)(B). The Secretary may order such person to provide compensatory damages to the complainant. Id.

In addition to the plain language of the Clean Air Act, the legislative history of the employee protection provision of the Clean Air Act provides some assistance in determining whether Congress intended to protect an employee from their employer or a non-employer. The legislative history of the employee provision suggests that Congress intended to protect an employee from the discriminatory acts of an employer when the employee was involved in whistleblower activity.

A House Committee Report indicates that the best source of information for a company's activity is its own employees. The history appears to focus the protection of the provision on workers who observe alleged environmental violations in their work places. H.R. Rep. No. 294, 95th Cong. 1st Sess. at 325 (1977), reprinted in

1977 U.S.C.C.A.N. 1077, 1404; Reid v. Methodist Medical Ctr. of Oak Ridge et. al., Case No. 93-CAA-4 (Sec'y April 3, 1995). Furthermore, a second House Committee Report consistently refers to protecting employees from discriminatory acts in their employment. H.R. Rep. No. 564, 95th Cong. 1st Sess. 1977; reprinted in 1977 U.S.C.C.A.N. 1502. In addition, the report repeatedly refers to an employee, an employer, and to employment related activities and remedies. Id.

I find that the plain language of the substantive provision in the employee protection provision, § 7622(a), along with the legislative history, are more reliable expressions of Congress' intent than the plain language of the procedural sections, § 7622(b)-(e), which use the word person rather than employer. No clear legislative expression has been found to explain the use of the broader term "person" in the procedural sections rather than the more limiting use of employer in the substantive section. Notwithstanding the reference to "person" in the employee protection section of the Clean Air Act, I find and conclude that employees are protected from discriminatory acts committed only by their employers.

Because the employee provision of the Clean Air Act protects employees from only employer action, it must be determined whether Respondent was Complainant's employer within the meaning of the Clean Air Act. The statute does not define the terms employee and employer. Moreover, no clear expression of congressional intent regarding the meaning of employee and employer exists. However, the Secretary of Labor adopted the common law employee test enunciated in Nationwide Mutual Ins. Co. v. Darden, 503 U.S. 318, 112 S.Ct. 1344 (1992) to determine a complainant's employment status. Reid, supra, [50] aff'd Reid v. Secretary of Labor, No. 95-3648 (6th Cir. Dec. 20, 1996)(unpublished decision available at 1996 U.S. App. LEXIS 33984).

The Court in Darden held that when Congress uses terms that have accumulated settled meaning under the common law, a court must infer, unless otherwise defined by the statute, that Congress means to incorporate the established meaning of the terms. Darden, 504 U.S. at 322; 112 S.Ct. at 1348 (citations omitted). Because the employee protection provision of the Clean Air Act does not define

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[50] In Reid, the Secretary rejected the "economic realities" test and held that Darden was not controlling law, however, it was appropriate to apply to the environmental statutes at issue, including the Clean Air Act. But see Coupar v. U. S. Dept. of Labor, 105 F.3d 1263, 1265 (9th Cir. 1997)(Using the "economic realities" test, a federal inmate who filed whistleblower complaints against Federal Prison Industries, Incorporated was not an employee within the employee protection provision of the Clean Air Act.)

employee, the Secretary inferred that Congress intended to describe the conventional master-servant relationship as understood by common-law agency doctrine. Reid, supra.

In Darden, the Court considered the hiring party's right to control the manner and means by which the product is accomplished. 503 U.S. at 323, 112 S.Ct. at 1348. In addition, the Court listed the following relevant factors for consideration when determining whether an employer/employee relationship exists:

> . . . the skill required; the source of the instrumentalities and tools; the location of the work; the duration of the relationship between the parties; whether the hiring party has the right to assign additional projects to the hired party; the extent of the hired party's discretion over when and how long to work; the method of payment; the hired party's role in hiring and paying assistants; whether the work is part of the regular business of the hiring party; whether the hiring party is in business; the provision of employee benefits; and the tax treatment of the hired party.

503 U.S. at 323; 112 S.Ct. at 1348. All indicia of the relationship must be assessed and weighed with no one factor being decisive. Id. at 324; 1349.

In the present matter, Respondent entered into a written contract with Martin Marietta, Complainant's direct employer, to perform special services. After analyzing the contract, it is evident that Respondent contracted with Martin Marietta to perform certain tasks, and that Respondent and Martin Marietta intended to remain separate employers. In accordance with the contract, Martin Marietta was responsible for furnishing the necessary management and personnel to complete the tasks. Furthermore, it was Martin Marietta's responsibility to supervise, control, and direct the performance of its own employees in fulfilling the contract requirements. However, notwithstanding the foregoing, the written intent of Respondent and Martin Marietta does not entirely resolve the issue of the scope and extent of control Respondent may have exercised over Complainant in daily practice during the operation of the contract. Each pertinent factor requires individual and collective analysis.

1. Respondent's authority to hire or dismiss Complainant from her job position.

In accordance with the SPDEO contract, Martin Marietta was responsible for providing all of the required staff, and their necessary skill level, to perform the work to be completed.

Complainant testified that she was hired by Martin Marietta in 1991 and resigned on June 1, 1994 from Martin Marietta as part of a settlement agreement.

The record is devoid of evidence showing that Respondent was authorized or involved in Martin Marietta's hiring process or the termination process of Complainant. Complainant did not introduce any evidence to show that Respondent was involved with the termination process of Martin Marietta. Thus, I find that Respondent did not exercise authority to hire or dismiss Complainant from her job position with Martin Marietta.

2. Method of payment; salary determination; authority to set work hours; provision of employee benefits; tax treatment.

Complainant did not introduce evidence to the show that she received her salary or employee benefits from Respondent. Instead, Complainant and Mr. Hite testified that she received her salary and employment benefits from Martin Marietta. (See RX-34). Thus, based on Complainant's supported and uncontradicted testimony, I find that she received her regular salary and employment benefits from Martin Marietta and not from Respondent. [51] (RX-34; Tr. 154, 246).

In addition, Mr. Hite testified that Martin Marietta determined the scheduled work hours Complainant worked on assigned tasks. Based on Mr. Hite's uncontradicted testimony, I find that Martin Marietta, and not Respondent, set Complainant's work hours while she worked at Respondent's facility.

Based on the testimony of Mr. Hite and Complainant, I further find that Respondent did not have the power to authorize Complainant to use her leave time. Mr. Hite testified that Martin Marietta determined the amount of leave time permitted for vacation and illness, and Complainant was required to obtain approval from Martin Marietta management when she used her vacation time, sick time, or was required to be away from work for any extended period.[52] Moreover, Complainant testified that she obtained approval from Martin Marietta management anytime that she requested time away from work. Thus, I find that Respondent did not exercise control over Complainant's work hours or leave time.

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[51] These benefits include health insurance, life insurance, personal accident insurance, and disability insurance. (RX-34).

[52] Although Ms. Villerreal testified that she believed Complainant was performing poorly at work due to her absenteeism, about which Complainant did not inform Ms. Villerreal, she further testified that Complainant was not required to inform her of any scheduled or extended leave time.

Complainant argued that Respondent influenced salary increases given to other Martin Marietta employees. Mr. Kitterman testified that Respondent's supervisors suggested to him that certain Martin Marietta employees, whom he did not name, should receive salary increases. Mr. Kitterman further testified that Respondent's statements did not result in a salary increase for any Martin Marietta employee. Complainant did not introduce any additional evidence showing that Respondent's actions influenced her own salary or that any other Martin Marietta employee received a salary increase while working at the Johnson Space Center. Because Complainant did not demonstrate that Respondent influenced salary increases for any Martin Marietta employee, including herself, I find that Respondent did not exercise control over the salaries of Martin Marietta employees.

I further find that the record evidence reflects earnings were withheld from Complainant's salary by Martin Marietta for payment of federal and state taxes. (See RX-34).

3. Work location and equipment provided by Respondent

Complainant testified that she performed her work, with other Martin Marietta employees, at Respondent's Johnson Space Center in Building 36. The SPDEO contract specified that Martin Marietta would perform work on-site at Respondent's Johnson Space Center and off-site at a nearby location. In addition, the SPDEO contract specified that Respondent would provide necessary equipment for Martin Marietta when the work was performed on-site. According to Ms. Kennamer's uncontradicted testimony, the work was performed on-site because the necessary facilities to perform the work were available at the Johnson Space Center. She further testified that Martin Marietta provided all the necessary materials to complete the work at Johnson Space Center.

Based on the testimony of Complainant and Ms. Kennamer, I find that Respondent did not act in practice inconsistently with the SPDEO contract in such a manner as to exercise any control over the terms and conditions of Complainant's employment. Thus, the record does not indicate that Complainant, nor any other Martin Marietta employee, had unlimited access to Respondent's buildings, equipment, or material or that Respondent controlled the manner and means by which the products and services were accomplished by Martin Marietta employees. [53]

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[53] I further find that the badge and parking decal issued to Complainant did not provide her with security clearance to classified material. (See CX-5; CX-65a, pp. 27-28). Instead, Complainant's name was placed on the visitors' list which allowed Complainant access to Respondent's Johnson Space Center. (RX-34; CX-65a, pp. 27-28).

4. Duration of the relationship between Complainant and Respondent

Complainant testified that she began working for Martin Marietta in April 1990 and resigned in June 1994. Complainant's testimony indicates that she was consistently assigned to work on projects for which Martin Marietta was contracted to complete for Respondent. It is clear from Complainant's testimony that she conducted her work on Respondent's property or at a Martin Marietta site after reassignment to the Agena Building sometime in November or December 1993. (Tr. 155). She testified that she worked at the Johnson Space Center in Building 36 upon being assigned to work on the PVPD project in November 1993. She worked with both Martin Marietta employees and Respondent's employees. Complainant was prohibited from entering the Johnson Space Center on January 14, 1994. I find that Complainant worked at Respondent's Johnson Space Center under the SPDEO contract from April 1990 through an undetermined time in November or December 1993.

5. Respondent's authority to discipline Martin Marietta employees; assign work.

Complainant contends that Respondent controlled Martin Marietta personnel such that Respondent directed the disciplinary actions of Martin Marietta employees. Complainant argued that Respondent instructed Martin Marietta to issue her a written reprimand, prohibit her from entering Johnson Space Center and speaking with Respondent's personnel concerning her work.

a. Written reprimand

Based on the credible testimony of Mr. Kitterman and Mr. Hite, I find that Respondent did not instruct Martin Marietta management to issue Complainant a written reprimand for moving the PVPDs. According to Mr. Hite, Respondent did not instruct him to issue a reprimand to Complainant for improperly removing the PVPDs from the clean room. In addition, Mr. Kitterman testified that Respondent did not instruct or request him to discipline Complainant. Although Mr. Kitterman believed Ms. Kramer's reaction to Complainant's removal of the PVPDs warranted a disciplinary response from Martin Marietta management, I find that Ms. Kramer's reaction does not rise to a level such that she controlled the terms and conditions of Complainant's employment. I find the testimony of Mr. Kitterman and Mr. Hite to be credible and consistent. The record is devoid of any other evidence that Respondent controlled Martin Marietta's management decisions such that Respondent exercised any control over disciplinary matters

relating to Complainant or any other Martin Marietta employee. [54]

I further find that Complainant was re-assigned off-site from the Johnson Space Center based on her request to be transferred and Mr. Kitterman's belief that the new assignment would be better for Complainant because of the reprimand. Complainant and Mr. Kitterman testified that she requested to be re-assigned to a project where she would not work with medical hardware. Although Complainant testified that she was re-assigned to work with the PVPDs for the MIR project, there is no record evidence that Respondent directed the re-assignment. Based on the testimony of Complainant and Mr. Kitterman, I find that Respondent did not direct Martin Marietta to re-assign Complainant to a position off-site.

b. Prohibition from Johnson Space Center.

Based on Mr. Kitterman's testimony relating to the January 13, 1994 discussion with Ms. Kramer, I find that he was led to believe Ms. Kramer wanted Complainant banned from the Johnson Space Center facility and from speaking to Respondent's civil servants concerning Complainant's duties as a contractor rather than merely prohibited from access to the flight hardware. Mr. Kitterman testified that Ms. Kramer informed him she wanted Complainant away from the flight hardware and the facility. He explained that Ms. Kramer's voice was raised and she was very emotional during their conversation. Furthermore, I find Ms. Kramer's inaction to correct the January 14, 1994 memorandum belies the inaccuracy of the memorandum and that she directed Martin Marietta to instruct Complainant to surrender her badge and parking decal.

In addition, I find that the memorandum authored by Mr. Seitz and Mr. James Barnett is self-serving and does not diminish the credibility of Mr. Kitterman's testimony. Mr. Seitz provided inconsistent and varied explanations for the delay that occurred between the January 14, 1994 memorandum and the corrective February 1994 memorandum. Moreover, it should be noted that Mr. Barnett did not provide testimony to further support the information in the memorandum or to explain the reason for the delay that occurred between the January 14, 1994 memorandum and his memorandum. I credit Mr. Kitterman's testimony over the incredulous denials of Ms. Kramer. Thus, I find that Ms. Kramer ordered Complainant "banned" from the Johnson Space Center and "gagged" from engaging

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[54] Ms. Kramer testified that she did not instruct Mr. Kitterman or Mr. Hite to discipline Complainant, but to remove her from access to flight hardware. Mr. Hite testified that he was never instructed to remove Complainant from access to the medical hardware. Although the record contains this discrepancy, the record is devoid of evidence demonstrating that Respondent directed Martin Marietta to discipline Complainant.

in any work discussions with NASA employees.

c. Direction by Respondent for Complainant to attend meetings and accomplish “to do” lists.

Complainant contends that Respondent directed her to attend meetings during an undetermined time while she worked at the Johnson Space Center. Ms. Villarreal testified that she instructed Complainant to attend meetings in her place, however, neither Complainant nor Ms. Villarreal described with specificity the number of meetings Complainant attended, if any, the location of the meetings, the purpose of the meetings, nor the time period in which Complainant attended the meetings. I find that the record evidence does not establish Respondent exercised control over the terms and conditions of Complainant’s employment.

Complainant further contends that she received daily “to do” lists from Respondent. Complainant testified that Ms. Villarreal and Ms. Lee sent “to do” lists by e-mail on a daily basis. Because of Respondent's failure to produce all documents with Complainant's name and failure to persuade the undersigned that a proper search was conducted for e-mail records and documentary evidence, an adverse inference was invoked against Respondent such that the production of e-mail records or additional documentary evidence would have been adverse to Respondent's position. (Tr. 787). Notwithstanding the adverse inference, I find, based on Complainant's testimony, that the lists were not work assignments issued by Respondent, but requests for information concerning the status of the PVPD project. Complainant characterized the e-mail messages as “to do” lists, however, when asked to provide specific details of the lists, she testified that the lists contained questions asking whether certain tasks were completed. Thus, I find that Respondent did not assign daily work to Complainant or any other Martin Marietta employee but rather sought current production status.

d. Respondent’s authority to assign work projects to Martin Marietta employees.

Mr. Kitterman testified that he assigned Martin Marietta employees to specific projects at the request of Respondent's supervisors. I find that Mr. Kitterman provided vague recollections of events without specific details about such assignments, the Martin Marietta employee involved and the specific project to which assigned. Based on the lack of specific evidence contained in the record, I find that Respondent did not request Martin Marietta management to assign or re-assign specific Martin Marietta employees to particular projects.

6. Complainant was expected to follow Respondent's policies and procedures at Johnson Space Center.

Complainant contends that she is an employee of Respondent because she was required to follow their policies and procedures when she determined that the PVPDs should not be used because of the potential ETO exposure. Under the SPDEO contract, Martin Marietta was responsible for developing and maintaining an inventory control system for Life Sciences Project Division equipment and hardware that was in accordance with approved standards for government property, inclusive of Respondent's policies. The inventory system was to insure that Respondent's property could be accounted and controlled in accordance with Respondent's policies. I find that under the SPDEO contract, Martin Marietta was responsible for controlling and managing Respondent's property and hardware in accordance with Respondent's policies. I further find that Respondent did not act in practice inconsistently with the SPDEO contract in such a manner as to exercise any control over the terms and conditions of Complainant's employment.

7. Complainant's Performance Evaluations

Complainant's Martin Marietta personnel file showed that she received three performance evaluations from April 1990 through June 1994. The performance evaluations were completed by both Complainant and her Martin Marietta supervisor. In addition, Complainant received three commendation letters. The first letter was received in October 1991 from Floyd I. Booker, Respondent's SLS-1 Metabolic Experiment Manager. The second letter was received in November 1992 from Dr. Lyman Hazelto, chief scientist for the "principal investigator in a box" project. Complainant received the third letter in January 1994, from Silvano P. Colombano, Respondent's project leader for the artificial intelligence research branch. One letter was addressed to Complainant and the remaining two letters were addressed to Complainant's Martin Marietta supervisors. Based on Complainant's personnel file and the evaluations and commendations filed therein, I find that Martin Marietta, and not Respondent, conducted all of Complainant's yearly employee performance evaluations. I further find that the three letters of commendation concerning Complainant's work activity were not performance evaluations written by Respondent's personnel, but episodic letters praising Complainant's job performance on particular projects. Thus, I find that Respondent did not conduct performance evaluations of Complainant's work activity.

8. Respondent's usual type of business

The SPDEO contract indicates that Martin Marietta's usual business is providing support services for other organizations. In this matter, Martin Marietta provided support services for Respondent's Space and Life Sciences Directorate and the New

Initiatives Office. The support services included project management, administration, and performance of tasks including project science support, flight systems engineering, data systems development, and other various tasks to support current and future manned and man-tended missions. In addition, Mr. Hite testified that Martin Marietta was responsible for developing flight hardware for Respondent's Life Sciences Directorate and to support their science efforts under the life sciences.

Neither Complainant nor Respondent introduced evidence to show Respondent's usual type of business. However, I find that Respondent's usual business did not include developing flight hardware for the Space and Life Sciences Directorate nor performing any of the various tasks required of Martin Marietta under the SPDEO contract. Under the SPDEO contract, Martin Marietta had substantial authority and responsibility to provide the necessary support services to develop, implement, manage, and administer flight hardware for the Space and Life Sciences Directorate and the New Initiatives Office.

C. Conclusion

Based on the record evidence, I find and conclude that Complainant has failed to establish that Respondent was her joint employer, exercised power, control, and authority over the terms and conditions of her employment, or controlled the manner and means by which the ultimate product was accomplished.

From an analysis of Respondent's exhibit 38, which purports to be the pertinent provisions of the SPDEO contract, it is apparent that the parties intended to remain separate employers. Thus, Martin Marietta was responsible for furnishing the necessary management and personnel to complete the contracted work. Martin Marietta was responsible for supervising, controlling, and directing the performance of its own employees, including Complainant, in fulfilling the contract requirements. Except to approve the proposed plans submitted by Martin Marietta, Respondent was not responsible for the development or management of flight hardware.

Furthermore, the actual performance of the contract by Respondent and Martin Marietta does not show that Respondent was Complainant's joint employer, or controlled the terms and conditions of her employment, or the manner and means by which the product was accomplished. It is true that Respondent provided a work location for Complainant and directed Martin Marietta to prohibit Complainant from entering the Johnson Space Center, however, Respondent did not hire Complainant, pay her salary, withhold her taxes, set her work hours, provide employee benefits, evaluate her job performance, have the authority to grant leave time, to re-assign or discipline Martin Marietta employees, or determine the necessary skills required by the employees to

complete the tasks. See Robinson v. Martin Marietta, Inc., Case No. 94-TSC-7 (ARB Sept. 23, 1996)(Applying the Darden factors, the Administrative Review Board held that Martin Marietta, and not NASA, was the complainant's employer. Only Martin Marietta

evaluated the complainant's work, assigned him additional work, provided employee benefits, and paid his salary.)

I find that the work location provided by Respondent was in accordance with the SPDEO contract and did not affect the terms and conditions of Complainant's employment. I further find that Respondent's instruction to prohibit Complainant from the Johnson Space Center or to speak to Respondent's employees was a single event that does not convert Complainant from an employee of Martin Marietta to an employee of Respondent in view of the record as a whole and the employment indicia which clearly establishes Martin Marietta as Complainant's employer. Accordingly, I find and conclude that the record evidence does not establish Respondent was Complainant's employer within the meaning of the Clean Air Act.

In view of the foregoing, an analysis of Complainant's prima facie case of alleged unlawful discrimination committed by Respondent is moot.

IV. RECOMMENDED ORDER

Based upon the foregoing Findings of Fact, Conclusions of Law, and upon the entire record, I find and conclude that Respondent is not Complainant's employer within the meaning of the Clean Air Act and accordingly Respondent did not violate the employee protective provision of the Clean Air Act as alleged. Therefore, it is recommended that Complainant's complaint be DISMISSED.

ORDERED this 13TH day of November 1997, at Metairie, Louisiana.

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LEE J. ROMERO, JR.
Administrative Law Judge

NOTICE: This Recommended Decision and Order and the administrative file in this matter will be forwarded for review by the Secretary of Labor to the Administrative Review Board, U.S. Department of Labor, Room S-4309, Frances Perkins Building, 200 Constitution Avenue, N.W., Washington, D.C. 20210. The Administrative Review

Board has the responsibility to advise and assist the Secretary in the preparation and issuance of final decisions in employee protection cases adjudicated under the regulations at 29 C.F.R. Parts 24 and 1978. See Fed. Reg. 13250 (1990).